32421

Access DB# _____

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Gaylene B. Gabel Examiner #: 76197 Date: 1/4/01
Art Unit: 1615 Phone Number 30 5-0807 Serial Number: 09/447,534
Mail Box and Bldg/Room Location: 1615 Results Format Preferred (circle): PAPER DISK E-MAIL
7E12

If more than one search is submitted, please prioritize searches in order of need.

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Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Interactive System for Preventing and Eliminating Substances

Inventors (please provide full names): Bucha, Elke ; Nowak, Gotz

Earliest Priority Filing Date: 4/14/98

***For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.**

Please search highlighted terms in claim 1 and attached structure; also key terms in claims 3, 4 and claims 8, 11, 12.

see Abstract

Thanks

Gail

Point of Contact:
Susan Hanley
Technical Info. Specialist
CM1 12C14 Tel: 305-4053

****

STAFF USE ONLY

Searcher: Hanley
Searcher Phone #: _____
Searcher Location: _____
Date Searcher Picked Up: 1/4
Date Completed: 1/13
Searcher Prep & Review Time: 5.90T 10
Clerical Prep Time: _____
Online Time: 5.120T 16

Type of Search

NA Sequence (#) _____
AA Sequence (#) _____
Structure (#) 1
Bibliographic _____
Litigation _____
Fulltext _____
Patent Family _____
Other _____

Vendors and cost where applicable

STN T 186 S _____
Questel/Orbit _____
Dr.Link _____
Lexis/Nexis _____
Sequence Systems _____
WWW/Internet _____
Other (specify) _____

Inventor SEARCH

GABEL 09/417,534

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=> d his

     (FILE 'HOME' ENTERED AT 14:18:55 ON 13 JAN 2001)

     FILE 'HCAPLUS' ENTERED AT 14:18:59 ON 13 JAN 2001
L1            21 S BUCHA E?/AU
L2           458 S NOWAK G?/AU
L3            17 S L1 AND L2
                 SELECT RN L3 1-17

     FILE 'REGISTRY' ENTERED AT 14:20:34 ON 13 JAN 2001
L4            32 S E1-32

     FILE 'HCAPLUS' ENTERED AT 14:20:41 ON 13 JAN 2001
L5            16 S L3 AND L4
L6             1 S L3 NOT L5
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16 cites w/ 32 cpds displayed

1 cite w/ No cpd displayed

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=> d bib abs hitstr 15 1

L5   ANSWER 1 OF 16  HCAPLUS  COPYRIGHT 2001 ACS
AN   2000:723063  HCAPLUS
DN   133:261528
TI   Use of extended-molecular weight hirudin as anticoagulant during
     artificial kidney therapy
IN   Nowak, Gotz; Bucha, Elke
PA   Max-Planck-Gesellschaft zur Forderung der Wissenschaften e.V. Berlin,
     Germany
SO   Ger. Offen., 6 pp.
     CODEN: GWXXBX
DT   Patent
LA   German
FAN.CNT 1
     PATENT NO.         KIND  DATE           APPLICATION NO.  DATE
     ---------------    ----  --------       ---------------  --------
PI   DE 19915862        A1    20001012       DE 1999-19915862 19990408
     WO 2000061121      A2    20001019       WO 2000-EP2446   20000320
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR,
             CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU,
             ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,
             LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE,
             SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA,
             ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
             DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
             CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRAI DE 1999-19915862  19990408
AB   Extended-mol.-wt. hirudins are disclosed for the prepn. of non-autoimmune
     disease-inducing, non-autoantibody-crossreacting anticoagulants for
     artificial kidney therapy.  In particular, no type II thrombocytopenia is
     caused, and no crossreactivity with antibodies against platelet factor
     4-heparin-complex is seen.  The extended-mol.-wt. hirudins of the
     invention include e.g. hirudin conjugated with polyethylene glycol.
IT   9005-49-6D, Heparin, platelet factor 4 complexes
     37270-94-3D, Platelet factor 4, heparin complexes
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (antibodies to; extended-mol. wt. hirudin as anticoagulant during
        artificial kidney therapy)
RN   9005-49-6  HCAPLUS
CN   Heparin (8CI, 9CI)  (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN   37270-94-3  HCAPLUS
CN   Blood platelet factor 4 (9CI)  (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT   8001-27-2D, Hirudin, extended-mol.-wt. conjugates
     9004-54-0D, Dextran, hirudin conjugates 25322-68-3D,
     Polyethylene glycol, hirudin conjugates
     RL: BAC (Biological activity or effector, except adverse); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (extended-mol. wt. hirudin as anticoagulant during artificial kidney
        therapy)
RN   8001-27-2  HCAPLUS
CN   Hirudin (9CI)  (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN   9004-54-0  HCAPLUS
CN   Dextran (9CI)  (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN   25322-68-3  HCAPLUS
CN   Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI)  (CA INDEX
     NAME)
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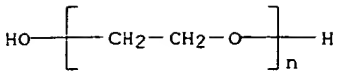


IT **9005-49-6**, Heparin, biological studies
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(heparin-induced type II thrombocytopenia; extended-mol. wt. hirudin as anticoagulant during artificial kidney therapy)
RN 9005-49-6 HCAPLUS
CN Heparin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

=> d bib abs hitstr 15 2

L5 ANSWER 2 OF 16 HCAPLUS COPYRIGHT 2001 ACS
AN 2000:553780 HCAPLUS
DN 133:132122
TI Method for determining the concentration of thrombin inhibitors using spectrophotometry
IN **Nowak, Gotz; Bucha, Elke**
PA Haemosys G.m.b.H., Germany
SO PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DT Patent
LA German
FAN.CNT 1

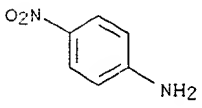
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000046602	A2	20000810	WO 2000-DE330	20000128
	W: AE, AL, AM, AT, AU, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	DE 19904674	A1	20000831	DE 1999-19904674	19990204
	WO 2000046602	A3	20001116	WO 2000-DE330	20000128
	W: AE, AL, AM, AT, AU, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				

PRAI DE 1999-19904674 19990204

AB The invention relates to a method for detg. the concn. of thrombin inhibitors in a non-turbid body fluid or a non-turbid ext. from a body fluid. The body fluid is taken from a living organism and is sepd., if required, from the turbidities. An anticoagulative agent that does not affect the prothrombin/active meizothrombin or Mtdesfgl conversion process, a chromogenic or fluorogenic substrate that can be cleaved by active meizothrombin or Mtdesfgl and a substance that cleaves prothrombin into meizothrombin or Mtdesfgl, in addn. to prothrombin (optionally) are added to the non-turbid body fluid thus obtained. The mixt. thus obtained undergoes time-based wavelength-selective light absorption or light emission measurement. The amt. of thrombin inhibitor contained in the body fluid is detd. by means of comparison with detd. std. curves on the basis of a decrease in the absorption or emission of light.

IT **100-01-6**, p-Nitroaniline, uses **55466-26-7**, Ecarin
133876-35-4, Pefachrome TH
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(method for detg. concn. of thrombin inhibitors using spectrophotometry)

RN 100-01-6 HCAPLUS
CN Benzenamine, 4-nitro- (9CI) (CA INDEX NAME)



RN 55466-26-7 HCAPLUS
CN Ecarin (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 133876-35-4 HCAPLUS
CN Pefachrome TH (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT **7440-70-2D**, Calcium, complexes **9000-94-6**, Antithrombin
9005-49-6, Heparin, analysis **60202-16-6**,
Blood-coagulation factor XIV
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(method for detg. concn. of thrombin inhibitors using
spectrophotometry)
RN 7440-70-2 HCAPLUS
CN Calcium (8CI, 9CI) (CA INDEX NAME)

Ca

RN 9000-94-6 HCAPLUS
CN Antithrombin (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9005-49-6 HCAPLUS
CN Heparin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 60202-16-6 HCAPLUS
CN Blood-coagulation factor XIV (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT **8001-27-2**, Hirudin
RL: BAC (Biological activity or effector, except adverse); BIOL
(Biological study)
(method for detg. concn. of thrombin inhibitors using
spectrophotometry)
RN 8001-27-2 HCAPLUS
CN Hirudin (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT **9002-04-4**, Thrombin
RL: BOC (Biological occurrence); BIOL (Biological study); OCCU
(Occurrence)
(method for detg. concn. of thrombin inhibitors using
spectrophotometry)
RN 9002-04-4 HCAPLUS
CN Thrombin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT **9001-26-7**, Prothrombin **69346-19-6**, Meizothrombin
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(method for detg. concn. of thrombin inhibitors using
spectrophotometry)
RN 9001-26-7 HCAPLUS
CN Blood-coagulation factor II (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 69346-19-6 HCAPLUS
CN Thrombin, meizo- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

=> d bib abs hitstr 15 3

L5 ANSWER 3 OF 16 HCAPLUS COPYRIGHT 2001 ACS
AN 2000:156372 HCAPLUS
DN 132:216404
TI Thrombin inhibitors from blood sucking animals
AU **Nowak, Gotz**; Lange, Ute; Mende, Katrin; **Bucha, Elke**
CS Jena, Germany
SO Nova Acta Leopold. (1999), 80(311), 37-59
CODEN: NOALA4; ISSN: 0369-5034
PB Deutsche Akademie der Naturforscher Leopoldina
DT Journal; General Review
LA German
AB A review with many refs. is given. In animal kingdom, during evolution some lower invertebrates developed blood-feeding as the way of nutrition. Both insects and worms succeeded in this specialisation. Several adaptive steps lead to a fast, painless blood-feeding, frequently without reaction for the host. Blood-sucking animals add coagulation inhibiting substances to the blood, mostly enzyme inhibitors of the final phase of coagulation. The medical leech Hirudo medicinalis, having been used in folk medicine for thousands of years, secretes a highly specific, tight-binding thrombin inhibitor - hirudin. This thrombin inhibitor recently became available in recombinant, nature identical form for prophylaxis and therapy of thromboembolic disease. Discovery of other tight-binding thrombin inhibitors with similar specificity to hirudin also succeeded in insects, e. g. tsetse fly Glossina morsitans morsitans, Anopheles stephensi, black fly Simulium vittatum (simulidin), and horse fly Tabanus bovinus (tabanin). Also ticks, e.g. Ixodes ricinus, Ornithodorus moubata, Amblyomma americanum and Haemaphysalis longicornis, secrete highly specific thrombin inhibitors out of their salivary glands during blood-feeding. Among the big group of bugs some species became known that secrete besides platelet inhibiting and vascular tone influencing substances also highly specific, tight-binding and bifunctional thrombin inhibitors out of their digestive glands of the gastrointestinal tract. To these species belong besides the bed bug Cimex lectularius also Eutriatoma maculata (maculatin), Triatoma infestans (reduviin), Rhodnius prolixus (rhodniin), Triatoma pallidipennis (triabin, an exosite-inhibitor!) and Dipetalogaster maximus (dipetalogastin). By biochem. characterization of their mode of action, Ser proteinase specificity and original protein structures (Kazal-type inhibitors), these thrombin inhibiting substances may be considered as potential effective mechanisms in therapy. Dipetalogastin as a typical representative substance will be described in detail with regard to specificity, mode of action, and recombinant expression. Several anti-thrombin structures can be found in the nature. They all have the common features of being extremely specific thrombin inhibitors, having Ki-values in the fM range and exclusively using tight-binding mechanisms in inhibition.
IT **9002-04-4**, Thrombin
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(thrombin inhibitors from blood sucking animals)
RN 9002-04-4 HCAPLUS
CN Thrombin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RE.CNT 75
RE
(1) Abebe, M; J Insect Physiol 1995, V41, P1001 HCAPLUS
(3) Bar-Shavit, R; Semin Thromb Hemost 1986, V12, P244 HCAPLUS
(5) Bucha, E; Thromb Res 1990, V60, P445 HCAPLUS
(8) Cappello, M; Amer J Trop Med Hyg 1996, V54, P475 HCAPLUS
(9) Carney, D; J Cell Biochem 1984, V26, P181 HCAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d bib abs hitstr l5 4

L5 ANSWER 4 OF 16 HCAPLUS COPYRIGHT 2001 ACS
AN 2000:24633 HCAPLUS
DN 132:288253
TI In vitro study of r-hirudin permeability through membranes of different hemodialysers
AU **Bucha, Elke**; Kreml, Reiner; **Nowak, Goetz**
CS Max-Planck-Gesellschaft, Friedrich-Schiller-University, Jena, D-07740, Germany
SO Nephrol., Dial., Transplant. (1999), 14(12), 2922-2926
CODEN: NDTREA; ISSN: 0931-0509
PB Oxford University Press
DT Journal
LA English
AB After introducing the specific thrombin inhibitor recombinant hirudin (r-hirudin) into clin. practice in cases of heparin-induced thrombocytopenia (HIT, type II) the possibility of its use as an anticoagulant during haemodialysis treatment in HIT II patients is being discussed more frequently. On the one hand, the efficient, safe and routine use of r-hirudin during hemodialyses, including the maintenance of a therapeutic blood level, presupposes that no r-hirudin will leave the circulation by passing through the dialyzer membrane. On the other hand, it is important to have dialyzers whose permeability to r-hirudin allows its efficient removal from the human body because, to date, no antidote is com. available in cases of dangerously high blood concns. of r-hirudin. An in vitro circulation model was used to study the r-hirudin permeability of some low- and high-flux dialyzers. As r-hirudin-contg. vehicles, both albumin-contg. saline soln. and bovine blood were circulated in the blood space of the system for 2 h. Transmembrane r-hirudin passage was tested by measuring r-hirudin concn. both in the blood and dialyzate space fluids using the ecarin clotting time (ECT). Low-flux dialyzers with membranes made from polysulfone or regenerated cellulose proved to be almost impermeable to r-hirudin. In contrast, other low-flux membranes were partly permeable to r-hirudin (e.g. Hemophan) or even almost completely permeable (e.g. cellulose acetate). All high-flux dialyzers tested were permeable to r-hirudin. Only low-flux dialyzers with polysulfone or regenerated cellulose membranes proved to be suitable for r-hirudin use in routine haemodialysis therapy. Other low-flux, and all high-flux, capillaries are permeable to r-hirudin and offer the possibility of lowering toxic r-hirudin concns. after overdosing.
IT **8001-27-2**, Hirudin
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(hirudin permeability through membranes of different hemodialyzers)
RN 8001-27-2 HCAPLUS
CN Hirudin (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RE.CNT 19
RE
(2) Boon, D; Thromb Haemost 1996, V76, P480 HCAPLUS
(3) Bucha, E; Thromb Res 1990, V60, P445 HCAPLUS
(7) Markwardt, F; Thromb Res 1994, V74, P1 HCAPLUS
(13) Schiele, F; Thromb Haemost 1997, V77, P834 HCAPLUS
(16) Vanholder, R; Thromb Haemost 1997, V77, P650 HCAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d bib abs hitstr 15 5

L5 ANSWER 5 OF 16 HCAPLUS COPYRIGHT 2001 ACS
AN 1999:436221 HCAPLUS
DN 131:111127
TI R-hirudin as anticoagulant in regular hemodialysis therapy: Finding of therapeutic R-hirudin blood/plasma concentrations and respective dosages
AU **Bucha, Elke; Nowak, Goetz;** Czerwinski, Ralf; Thieler, Heinrich
CS Max-Planck-Gesellschaft eV, Research Unit "Pharmacological, Jena, Germany
SO Clin. Appl. Thromb./Hemostasis (1999), 5(3), 164-170
CODEN: CATHF9; ISSN: 1076-0296
PB Lippincott Williams & Wilkins
DT Journal
LA English
AB Recently heparin-induced thrombocytopenia type II has been diagnosed more frequently and does not exclude hemodialysis patients. Up to now, recombinant hirudin (r-hirudin) is the only available anticoagulant showing no immunol. cross reactions with heparin. However, the use of r-hirudin in hemodialysis patients with different degrees of residual renal functions is impossible using std. dosages because elimination of r-hirudin varies depending on the degree of residual renal function. Therefore the first study was carried out using consecutive r-hirudin anticoagulated hemodialyses to det. the appropriate dose of r-hirudin. Ten hemodialysis patients with creatinine clearance values ranging between 0 and 13 mL/min/1.73m2 were anticoagulated with r-hirudin. An initial bolus of 0.1 mg/kg body wt before the first hemodialysis, resulted in an av. r-hirudin blood concn. of 305 ng/mL at the end of treatment. The dose for each of the following four hemodialyses was adjusted individually to reach the min. therapeutic r-hirudin blood concn. At the end of these treatments the mean blood r-hirudin concn. was 422 ng/mL. The necessary mean doses ranged between 0.008 and 0.125 mg/kg body wt correlating to the creatinine clearance values of the patients. All hemodialyses of the study were effective and safe. Bleeding times detd. during r-hirudin anticoagulation were significantly lower than control values measured 2 days after a heparin administration. The study proved that r-hirudin may be an efficient and safe heparin alternative as a hemodialysis anticoagulant when the individual's residual renal function is noted for dosage and dose adjustment and is controlled by drug monitoring using the ecarin clotting time.
IT **8001-27-2,** Hirudin
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(recombinant; R-hirudin as anticoagulant in regular hemodialysis therapy and detn. of therapeutic R-hirudin blood/plasma concns. and resp. dosages)
RN 8001-27-2 HCAPLUS
CN Hirudin (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RE.CNT 17
RE
(1) Boon, D; Thromb Haemost 1996, V76, P480 HCAPLUS
(6) Nowak, G; Sem Thromb Hemost 1996, V22, P197 MEDLINE
(7) Nowak, G; Thromb Res 1992, V66, P707 MEDLINE
(8) Nowak, G; Wien Klin Wochenschr 1997, V109, P354 MEDLINE
(13) Sodian, R; ASAIO J 1997, V43, PM430 HCAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d bib abs hitstr 15 6

L5 ANSWER 6 OF 16 HCAPLUS COPYRIGHT 2001 ACS
AN 1999:234653 HCAPLUS
DN 131:39159
TI Sites of Elimination and Pharmacokinetics of Recombinant [131I]Lepirudin in Baboons
AU Meiring, S. M.; Loetter, M. G.; Badenhorst, P. N.; **Bucha, E.**; **Nowak, G.**; Kotze, H. F.
CS Department of Haematology and Cell Biology, University of the Orange Free State, Bloemfontein, S. Afr.
SO J. Pharm. Sci. (1999), 88(5), 523-529
CODEN: JPMSAE; ISSN: 0022-3549
PB American Chemical Society
DT Journal
LA English
AB Lepirudin has a short half-life, and only 50-60% of the i.v. administered dose is excreted by the kidneys. The fate of the remainder is unknown. The authors designed a study to det. the fate of this lepirudin. In each of six baboons, [131I]lepirudin was given i.v. as a bolus or infused over 30 min, 24 h apart. The in vivo redistribution of [131I]lepirudin was detd. and quantified by scintillation camera imaging. In all studies, the half-life of [131I]lepirudin, as detd. from the disappearance of radioactivity, was 21.+-.3 min. The half-life detd. from the disappearance of lepirudin, measured by the Ecarin Clotting Time (ECT) method, was similar at 23.+-.8 min. Results obtained with the labeled lepirudin are therefore comparable with those obtained using the plasma concn. of lepirudin. When lepirudin was administered as a bolus, the half-life was 18.+-.4 min, and lepirudin was cleared from the plasma at a rate of 42.+-.12 mL/min and by the kidneys at 23.+-.2 mL/min. Following infusion over 30 min, the half-life and total and renal clearances were not significantly different. In both studies, between 50 and 60% of the administered lepirudin was excreted by the kidney. Studies on sacrificed baboons showed that appreciable amts. of lepirudin were present in the bile, indicating the liver as a contributor to the elimination of lepirudin.
IT **138068-37-8**, Lepirudin
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(recombinant lepirudin pharmacokinetics and sites of elimination in baboons)
RN 138068-37-8 HCAPLUS
CN Hirudin (Hirudo medicinalis isoform HV1), 1-L-leucine-2-L-threonine-63-desulfo- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RE.CNT 19
RE
(1) Adkins, J; Biodrugs 1998, V10, P227 HCAPLUS
(3) Grotsch, H; Thromb Res 1992, V66, P271 HCAPLUS
(4) Hanson, S; Ateriosclerosis 1985, V5, P595 HCAPLUS
(5) Harker, L; J Clin Invest 1979, V64, P559 HCAPLUS
(6) Harvey, R; Proc Natl Acad Sci U S A 1986, V83, P1084 HCAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d bib abs hitstr 15 7

L5 ANSWER 7 OF 16 HCAPLUS COPYRIGHT 2001 ACS
AN 1998:701043 HCAPLUS
DN 129:306544
TI PMMA membranes with polyethylene glycol-bound physiologically active substances
IN **Bucha, Elke; Nowak, Goetz**
PA Max-Planck-Gesellschaft zur Foerderung der Wissenschaften e.V., Germany
SO Ger. Offen., 10 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

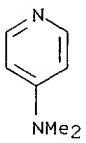
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19715504	A1	19981015	DE 1997-19715504	19970414
	DE 19715504	C2	20001026		
	WO 9846648	A1	19981022	WO 1998-EP2183	19980414
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9875254	A1	19981111	AU 1998-75254	19980414
	EP 975680	A1	20000202	EP 1998-922710	19980414
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

PRAI DE 1997-19715504 19970414
WO 1998-EP2183 19980414

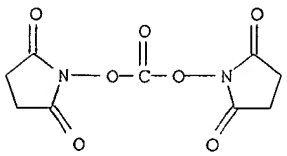
AB A PMMA membrane or copolymer membrane with PEG-bound physiol. active substances is used as a functional antidote (e.g., contg. antibodies, enzymes, anticoagulants, tumor markers) in extracorporeal therapeutic systems, e.g., blood dialysis systems. The PEG-bound active substance binds to the membrane. In examples, hirudin anticoagulants, hirudin monoclonal antibodies, monoclonal antibodies to tumor necrosis factors, and urease were bound to PEG and utilized in PMMA capillary dialysis systems for blood treatment.

IT **1122-58-3**, 4-(Dimethylamino)pyridine **74124-79-1**, N,N'-Disuccinimidylcarbonate
RL: RCT (Reactant)
(PMMA membranes with PEG-bound physiol. active substances)

RN 1122-58-3 HCAPLUS
CN 4-Pyridinamine, N,N-dimethyl- (9CI) (CA INDEX NAME)



RN 74124-79-1 HCAPLUS
CN 2,5-Pyrrolidinedione, 1,1'-[carbonylbis(oxy)]bis- (9CI) (CA INDEX NAME)



IT **8001-27-2D**, Hirudin, ethoxylated, derivs. **9002-13-5D**, Urease, ethoxylated, derivs. **9011-14-7D**, PMMA, derivs. **25322-68-3D**, PEG, derivs. **117091-16-4D**, ethoxylated, derivs. **124661-64-9D**, Poly(oxy-1,2-ethanediyl), .alpha.-4-nitrophenoxycarbonyl-.omega.-methoxy-, derivs.
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(PMMA membranes with PEG-bound physiol. active substances)

RN 8001-27-2 HCAPLUS
CN Hirudin (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

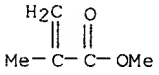
RN 9002-13-5 HCAPLUS
CN Urease (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

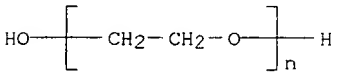
RN 9011-14-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

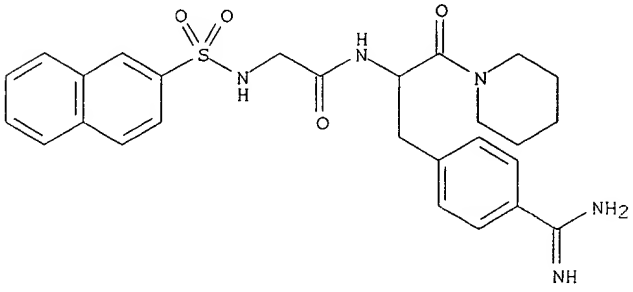
CRN 80-62-6
CMF C5 H8 O2



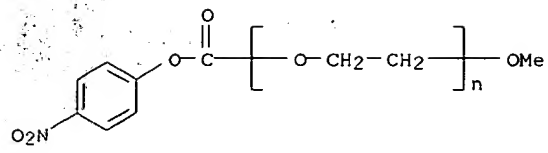
RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



RN 117091-16-4 HCAPLUS
CN Acetamide, N-[1-[[4-(aminoiminomethyl)phenyl]methyl]-2-oxo-2-(1-piperidinyl)ethyl]-2-[(2-naphthalenylsulfonyl)amino]- (9CI) (CA INDEX NAME)



RN 124661-64-9 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-[(4-nitrophenoxy)carbonyl]-.omega.-methoxy- (9CI) (CA INDEX NAME)


O
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C
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CH2
CH2
n
OMe
O2N

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=> d bib abs hitstr 15 8

L5   ANSWER 8 OF 16  HCAPLUS  COPYRIGHT 2001 ACS
AN   1998:42482  HCAPLUS
DN   128:119623
TI   Process for producing prothrombin as antidote for natural and synthetic
     thrombin inhibitors
IN   Nowak, Gotz; Zabe, Martin; Bucha, Elke
PA   Max-Planck-Gesellschaft zur Forderung der Wissenschaften E.V., Berlin,
     Germany; Nowak, Gotz; Zabe, Martin; Bucha, Elke
SO   PCT Int. Appl., 35 pp.
     CODEN: PIXXD2
DT   Patent
LA   German
FAN.CNT 1
     PATENT NO.         KIND  DATE          APPLICATION NO.  DATE
     ---------------    ----  --------      ---------------  --------
PI   WO 9749801          A1   19971231      WO 1997-EP2678   19970526
         W:  JP, US
         RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
     DE 19625642         A1   19980108      DE 1996-19625642 19960626
     EP 910629           A1   19990428      EP 1997-927036   19970526
         R:  CH, DE, FR, GB, IT, LI, NL, SE
PRAI DE 1996-19625642  19960626
     WO 1997-EP2678    19970526
AB   The invention relates to a process for producing a highly pure virus-free
     basic antidote substance for natural and synthetic thrombin inhibitors, in
     which a blood secondary product is first chromatographed via an anion
     exchange column, the fraction contg. the basic antidote substance is
     subjected to gel filtration and the pure basic antidote substance is
     isolated, and the use of the product thus obtained for the prodn. of an
     antidote for a natural or synthetic thrombin inhibitor.  The isolated
     basic antidote substance is prothrombin or prethrombin-1.
IT   55466-26-7, Ecarin
     RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
     (Uses)
        (affinity column contg.; process for producing prothrombin as antidote
        for natural and synthetic thrombin inhibitors)
RN   55466-26-7  HCAPLUS
CN   Ecarin (9CI)  (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT   9002-04-4, Thrombin
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (inhibitors; process for producing prothrombin as antidote for natural
        and synthetic thrombin inhibitors)
RN   9002-04-4  HCAPLUS
CN   Thrombin (8CI, 9CI)  (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT   9003-70-7, Divinylbenzene-styrene copolymer 9013-34-7,
     DEAE Sephacel 201490-97-3, Source Q 15 201491-03-4,
     Superdex 200
     RL: DEV (Device component use); USES (Uses)
        (process for producing prothrombin as antidote for natural and
        synthetic thrombin inhibitors)
RN   9003-70-7  HCAPLUS
CN   Benzene, diethenyl-, polymer with ethenylbenzene (9CI)  (CA INDEX NAME)

     CM   1

     CRN  1321-74-0
     CMF  C10 H10
     CCI  IDS
     CDES 8:ID
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2 [D1 – CH═ CH_2]

CM 2

CRN 100-42-5
CMF C8 H8

H_2C═CH– Ph

RN 9013-34-7 HCAPLUS
CN Cellulose, 2-(diethylamino)ethyl ether (8CI, 9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 100-37-8
CMF C6 H15 N O

Et_2N– CH_2– CH_2– OH

RN 201490-97-3 HCAPLUS
CN Source 15Q (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 201491-03-4 HCAPLUS
CN Superdex 200 (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT **9001-26-7P**, Prothrombin **69866-47-3P**, Prethrombin-1
RL: PUR (Purification or recovery); PREP (Preparation)
(process for producing prothrombin as antidote for natural and synthetic thrombin inhibitors)
RN 9001-26-7 HCAPLUS
CN Blood-coagulation factor II (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 69866-47-3 HCAPLUS
CN Thrombin 1, pre- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

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=> d bib abs hitstr 15 9

L5   ANSWER 9 OF 16  HCAPLUS  COPYRIGHT 2001 ACS
AN   1997:276276  HCAPLUS
DN   126:248253
TI   Metabolic enzyme inhibitors conjugated to high-molecular weight substances
     and their use in diagnosis and monitoring of therapy
IN   Nowak, Goetz; Bucha, Elke; Baldinger, Verena
PA   Max-Planck-Gesellschaft zur Foerderung der Wissenschaften e.V. Berlin,
     Germany
SO   Ger. Offen., 7 pp.
     CODEN: GWXXBX
DT   Patent
LA   German
FAN.CNT 1
     PATENT NO.         KIND  DATE           APPLICATION NO.  DATE
     ---------------    ----  --------       ---------------  --------
PI   DE 19533817         A1   19970320       DE 1995-19533817 19950913
     DE 19533817         C2   19991209
     CA 2231354          AA   19970320       CA 1996-2231354  19960801
     WO 9710509          A1   19970320       WO 1996-EP3383   19960801
         W:  CA, JP, US
         RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
     EP 864092           A1   19980916       EP 1996-927067   19960801
         R:  AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE, IE
     JP 11514218         T2   19991207       JP 1996-511588   19960801
     US 6051390          A    20000418       US 1998-29867    19980526
PRAI DE 1995-19533817  19950913
     WO 1996-EP3383    19960801
AB   Use of the title inhibitor-polymer conjugate as a mol. marker for
     activation of the metabolic enzyme is disclosed.  A preferred application
     is the use of polymer-bound thrombin inhibitors in monitoring therapy.
     The use of PEG- or dextran-hirudin conjugates for anal. of blood
     coagulation activation in rats and rabbits was demonstrated.  In rabbits,
     the dextran-hirudin conjugate remained in circulation for 24 h.
IT   139639-23-9D, Tissue-type Plasminogen activator, conjugates with
     high-mol.-wt. polymers
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (inhibitor; metabolic enzyme inhibitors conjugated to high-mol. wt.
        substances and their use in diagnosis and monitoring of therapy)
RN   139639-23-9  HCAPLUS
CN   Plasminogen activator, tissue-type (9CI)  (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT   8001-27-2D, Hirudin, conjugates with dextran or PEG
     9004-54-0D, Dextran, conjugates with thrombin inhibitors
     9049-68-7D, Plasmin inhibitor, conjugates with high-mol.-wt.
     polymers 25322-68-3D, conjugates with thrombin inhibitors
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (metabolic enzyme inhibitors conjugated to high-mol. wt. substances and
        their use in diagnosis and monitoring of therapy)
RN   8001-27-2  HCAPLUS
CN   Hirudin (9CI)  (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN   9004-54-0  HCAPLUS
CN   Dextran (9CI)  (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN   9049-68-7  HCAPLUS
CN   Plasmin inhibitor (9CI)  (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN   25322-68-3  HCAPLUS
CN   Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI)  (CA INDEX
     NAME)
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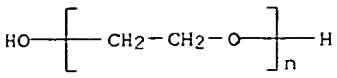


=> d bib abs hitstr 15 10

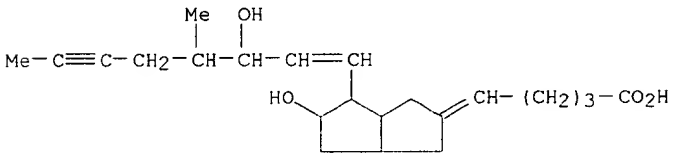
L5 ANSWER 10 OF 16 HCAPLUS COPYRIGHT 2001 ACS
AN 1995:887554 HCAPLUS
DN 123:329669
TI Prothrombin conversion intermediate effectively neutralizes toxic levels of hirudin
AU **Nowak, Gotz; Bucha, Elke**
CS Max-Planck-Gesellschaft, Friedrich Schiller Univ., Jena, Germany
SO Thromb. Res. (1995), 80(4), 317-25
CODEN: THBRAA; ISSN: 0049-3848
DT Journal
LA English
AB Meizothrombin, the stable intermediate product of ecarin-induced prothrombin conversion, was investigated for its ability to bind hirudin in blood. After in vitro pre-incubation of rat plasma with ecarin, the prolongation of the thrombin time caused by hirudin was reduced. The extent of hirudin neutralization was found to be dependent on the duration of incubation with ecarin. In vivo, after bilateral nephrectomy in Wistar rats and following administration of hirudin at a dose of 1 or 5 mg/kg, the blood level of hirudin remained const. after 2 h. After infusion of ecarin following hirudin administration, the hirudin blood level dropped sharply, reaching significantly reduced values, and bleeding stopped. Platelet count and fibrinogen level in plasma remained unchanged in the expts. using ecarin-induced prothrombin conversion intermediate generation. It is concluded that meizothrombin, a naturally occurring prothrombin conversion intermediate, provides an effective agent to neutralize toxic blood levels of hirudin.
IT **8001-27-2**, Hirudin
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(prothrombin conversion intermediate effectively neutralizes toxic levels of hirudin)
RN 8001-27-2 HCAPLUS
CN Hirudin (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT **69346-19-6**, Meizothrombin
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prothrombin conversion intermediate effectively neutralizes toxic levels of hirudin)
RN 69346-19-6 HCAPLUS
CN Thrombin, meizo- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

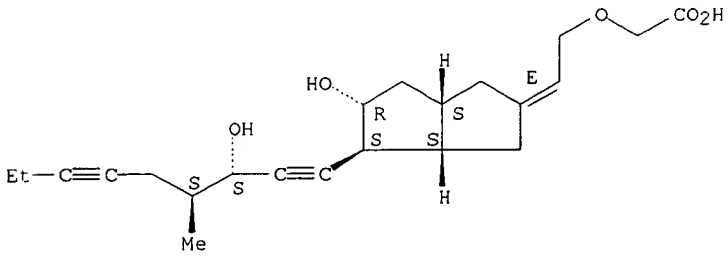
=> d bib abs hitstr l5 l1

L5 ANSWER 11 OF 16 HCAPLUS COPYRIGHT 2001 ACS
AN 1995:472394 HCAPLUS
DN 122:255838
TI Cicaprost inhibits collagen-induced platelet accumulation in rat lungs for some hours
AU **Nowak, G.; Bucha, E.**
CS Max-Planck-Gesellschaft, the Friedrich Schiller University Jena, Jena, D-07740, Germany
SO Agents Actions Suppl. (1995), 45(Mediators in the Cardiovascular System: Regional Ischemia), 101-6
CODEN: AASUDJ; ISSN: 0379-0363
DT Journal
LA English
AB A method is described which permits direct quantification of the trapping of collagen-induced platelet aggregates in the rat lung. The method involves scintillation counting of the radioactivity from indium-111-labeled autologous platelets in the lung. The synthetic PGI2 mimetics iloprost and, esp., cicaprost inhibited the pulmonary trapping of collagen-induced platelet aggregates. The method is suitable for performing both pharmacodynamic and kinetic investigations with inhibitors of collagen-induced platelet aggregation..
IT **78919-13-8,** Iloprost **94079-80-8,** Cicaprost
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(cicaprost and iloprost inhibition of collagen-induced blood platelet aggregation in lung)
RN 78919-13-8 HCAPLUS
CN Pentanoic acid, 5-[hexahydro-5-hydroxy-4-(3-hydroxy-4-methyl-1-octen-6-ynyl)-2(1H)-pentalenylidene]- (9CI) (CA INDEX NAME)



RN 94079-80-8 HCAPLUS
CN Acetic acid, [(2E)-2-[(3aS,4S,5R,6aS)-hexahydro-5-hydroxy-4-[(3S,4S)-3-hydroxy-4-methyl-1,6-nonadiynyl]-2(1H)-pentalenylidene]ethoxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



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=> d bib abs hitstr l5 12

L5   ANSWER 12 OF 16  HCAPLUS  COPYRIGHT 2001 ACS
AN   1993:574205  HCAPLUS
DN   119:174205
TI   Antidotes for hirudin and synthetic thrombin inhibitors
IN   Nowak, Goetz; Bucha, Elke
PA   Max-Planck-Gesellschaft zur Foerderung der Wissenschaften eV, Germany
SO   Ger. Offen., 12 pp.
     CODEN: GWXXBX
DT   Patent
LA   German
FAN.CNT 1
     PATENT NO.        KIND  DATE          APPLICATION NO.  DATE
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PI   DE 4203965         A1   19930812      DE 1992-4203965  19920211
     WO 9315757         A1   19930819      WO 1993-EP162    19930125
         W:  JP, US
         RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
     EP 625908          A1   19941130      EP 1993-903233   19930125
     EP 625908          B1   19971217
         R:  AT, BE, CH, DE, DK, ES, FR, GB, IE, IT, LI, NL, SE
     JP 07503719        T2   19950420      JP 1993-513709   19930125
     AT 161187          E    19980115      AT 1993-903233   19930125
     US 5817309         A    19981006      US 1996-694831   19960809
PRAI DE 1992-4203965  19920211
     WO 1993-EP162    19930125
     US 1994-284458   19941208
AB   Antidotes for hirudin and synthetic thrombin inhibitors comprise agents
     which convert prothrombin into meizothrombin, such as snake venoms,
     specifically ecarin.  Other antidoes are prothrombin intermediates, such
     as meizothrombin, PIVKA-prothrombin (PIVKA = protein induced by vitamin K
     antagonists) and meizothrombin-des-fragment-1.  The prepn. of
     meizothrombin by treatment of human thrombin with immobilized ecarin at pH
     5.5 is given.  The antidotes are useful, i.a., in cases of thrombin
     inhibitor or hirudin overdosage (no data).
IT   9001-26-7D, Blood-coagulation factor II, PIVKA (protein induced by
     vitamin K antagonists) derivs. 55466-26-7, Ecarin
     69346-19-6, Meizothrombin
     RL: BIOL (Biological study)
        (antidote, for hirudin and synthetic thrombin inhibitors)
RN   9001-26-7  HCAPLUS
CN   Blood-coagulation factor II (9CI)  (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN   55466-26-7  HCAPLUS
CN   Ecarin (9CI)  (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN   69346-19-6  HCAPLUS
CN   Thrombin, meizo- (9CI)  (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT   8001-27-2, Hirudin
     RL: BIOL (Biological study)
        (antidotes for, prothrombin intermediates and meizothrombin-forming
        agents as)
RN   8001-27-2  HCAPLUS
CN   Hirudin (9CI)  (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT   9002-04-4, Thrombin
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (inhibitors, synthetic, prothrombin intermediates and
        meizothrombin-forming agents as antidotes for)
RN   9002-04-4  HCAPLUS
CN   Thrombin (8CI, 9CI)  (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
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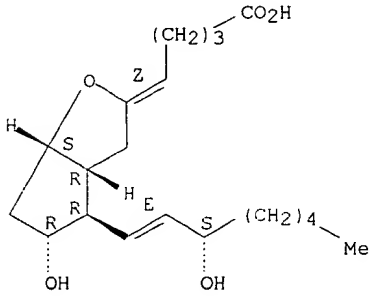
=> d bib abs hitstr 15 13

L5 ANSWER 13 OF 16 HCAPLUS COPYRIGHT 2001 ACS
AN 1992:645291 HCAPLUS
DN 117:245291
TI Favorable effect of defibrotide in lipid A-induced shock in pigs
AU Hohlfeld, T.; **Bucha, E.**; **Nowak, G.**; Brueggener, E.; Strobach, H.; Schroer, K.
CS Inst. Pharmakol., Heinrich-Heine-Univ., Duesseldorf, Germany
SO Circ. Shock (1992), 38(2), 122-9
CODEN: CRSHAG; ISSN: 0092-6213
DT Journal
LA English
AB Defibrotide (DEF), a compd. previously found to stimulate vascular prostacyclin (PGI2) formation, has been investigated in an exptl. model of septic shock. Anesthetized pigs were subjected to i.v. infusion of lipid A (1.5 mg/kg per h for 4 h.). DEF (50 mg/kg per h) or vehicle were infused i.v. throughout the expts., starting 1 h prior to lipid A. Two out of 7 pigs receiving vehicle survived lipid A infusion for 4 h, whereas 6 out of 7 DEF treated animals survived this period ($P < 0.05$). DEF delayed the shock-induced depression of platelet count and preserved platelet secretory function (collagen-induced ATP-secretion). DEF increased plasma PGI2 by 45% ($P < 0.05$) during lipid A infusion and tended to reduce thromboxane levels. DEF did not change eicosanoid formation in sham-shock pigs (n = 4 per group). In vivo treatment with DEF significantly increased the stimulatory effect of bradykinin (1 .mu.M) and arachidonic acid (100 .mu.M) on PGI2 formation ex vivo of mesenteric and iliac artery segments. The improvements of survival in lipid A-induced shock by DEF may be related to an enhancement of vascular PGI2 generation, potentially due to a redn. of shock-induced platelet activation and microcirculatory dysfunction.
IT **35121-78-9**, PGI2
RL: BIOL (Biological study)
(defibrotide increase of formation of, in septic shock treatment, platelet function modulation in relation to)
RN 35121-78-9 HCAPLUS
CN Prosta-5,13-dien-1-oic acid, 6,9-epoxy-11,15-dihydroxy-, (5Z,9.alpha.,11.alpha.,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



IT **83712-60-1**, Defibrotide
RL: BIOL (Biological study)
(septic shock treatment by, prostaglandin I2 formation increase in)
RN 83712-60-1 HCAPLUS
CN Defibrotide (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

=> d bib abs hitstr 15 14

L5 ANSWER 14 OF 16 HCAPLUS COPYRIGHT 2001 ACS
AN 1991:598016 HCAPLUS
DN 115:198016
TI Hirudin as anticoagulant in experimental hemodialysis
AU Markwardt, F.; **Nowak, G.**; **Bucha, E.**
CS Inst. Pharmacol. Toxicol., Med. Acad. Erfurt, Erfurt, O-5010, Fed. Rep. Ger.
SO Haemostasis (1991), 21(Suppl. 1), 149-55
CODEN: HMTSB7; ISSN: 0301-0147
DT Journal
LA English
AB After genetically engineered recombinant DNA desulfatohirudin (r-hirudin) had been investigated as to its pharmacokinetic behavior and blood level course in nephrectomized dogs, the compd. was studied for its capability to prevent thrombus formation in the extracorporeal circulation. Beagle dogs underwent bilateral functional nephrectomy followed by exptl. hemodialysis. R-hirudin content in blood, fibrinogen level as well as platelet count were detd. before and during the dialysis. Furthermore, the blood loss during the expt. was measured as well as the mean arterial pressure and the pressure in the blood line system. I.v. administration of the thrombin inhibitor resulted in initial distribution in the extracellular space (distribution phase 90 min) followed by retarded decrease of the r-hirudin blood level (t1/2.beta. .apprx. 6-8 h) which is due to the missing renal excretion of the inhibitor. This caused a long-lasting, dose-dependent anticoagulant effect, which is not only characterized by the prevention of increasing pressure before the capillary dialyzer but also by the reduced drop in fibrinogen and platelets during hemodialysis. The required dose of r-hirudin (0.5 mg/kg) is within a range where bleeding complications will not yet occur.
IT **8001-27-2**, Hirudin
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(anticoagulant activity of, in hemodialysis)
RN 8001-27-2 HCAPLUS
CN Hirudin (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

=> d bib abs hitstr 15 15

L5 ANSWER 15 OF 16 HCAPLUS COPYRIGHT 2001 ACS
AN 1991:74684 HCAPLUS
DN 114:74684
TI Hirudin in hemodialysis
AU **Bucha, E.**; Markwardt, F.; **Nowak, G.**
CS Inst. Pharmacol. Toxicol., Med. Acad. Erfurt, Erfurt, 5010, Ger. Dem. Rep.
SO Thromb. Res. (1990), 60(6), 445-55
CODEN: THBRAA; ISSN: 0049-3848
DT Journal
LA English
AB The use of recombinant hirudin as an anticoagulant agent in hemodialysis was studied in nephrectomized dogs. The capability of recombinant hirudin to penetrate the membranes of capillary dialyzers was detd. The pharmacokinetic behavior of recombinant hirudin in nephrectomized dogs and its capability to prevent the activation of the clotting system and fibrin deposition during hemodialysis were also evaluated. The results evidence the efficiency of recombinant hirudin in preventing thrombus formation in exptl. hemodialysis and its suitability as an anticoagulant for extracorporeal circulation.
IT **8001-27-2**, Hirudin
RL: BIOL (Biological study)
(pharmacokinetics of recombinant, in hemodiaylsis, blood coagulation in relation to)
RN 8001-27-2 HCAPLUS
CN Hirudin (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

=> d bib abs hitstr 15 16

L5 ANSWER 16 OF 16 HCAPLUS COPYRIGHT 2001 ACS
AN 1988:504508 HCAPLUS
DN 109:104508
TI Prevention of experimental coronary thrombosis by hirudin
AU **Bucha, Elke; Nowak, G.**; Markwardt, F.
CS Inst. Pharmacol. Toxicol., Med. Acad. Erfurt, Erfurt, Ger. Dem. Rep.
SO Folia Haematol. (Leipzig) (1988), 115(1-2), 52-8
CODEN: FOHEAW; ISSN: 0323-4347
DT Journal
LA English
AB Hirudin at 0.25, 0.5, or 1.0 mg/kg, s.c., reduced the incidence of exptl. coronary artery thrombosis in rats in a dose-dependent manner. The most pronounced antithrombotic activity was evident at plasma concns. of 0.20-0.35 .mu.g/mL.
IT **8001-27-2**, Hirudin
RL: BIOL (Biological study)
(coronary artery thrombosis inhibition by)
RN 8001-27-2 HCAPLUS
CN Hirudin (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

=> d bib abs 16

L6 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2001 ACS
AN 2001:21038 HCAPLUS
TI Pharmacodynamics and pharmacokinetics of polyethylene glycol-hirudin in patients with chronic renal failure
AU Poschel, Katrin Annett; **Bucha, Elke**; Esslinger, Hans-U.; Nortersheuser, Peter; Jansa, Ute; Schindler, Sabine; **Nowak, Gotz**; Stein, Gunter
CS Department of Internal Medicine IV, Friedrich Schiller University of Jena, Jena, Germany
SO Kidney Int. (2000), 58(6), 2478-2484
CODEN: KDYIA5; ISSN: 0085-2538
PB Blackwell Science, Inc.
DT Journal
LA English
AB Background. Hirudin selectively inhibits thrombin without co-factors and is eliminated via the kidneys. Recombinant hirudin (r-hi) has a terminal elimination half-life (t1/2) of about 50 to 100 min. Coupling of polyethylene glycol (PEG) to r-hi, giving PEG-hirudin (PEG-Hi), prolongs its t1/2 while enhancing efficacy. We looked at the pharmacodynamic and pharmacokinetic behavior of PEG-Hi in patients with impaired renal function. Anticoagulant activity and the pharmacokinetic parameters of a single i.v. bolus injection of 0.05 mg/kg body wt. PEG-Hi were studied in 38 subjects. They were assigned to five groups: group IA, creatinine clearance (CCr) .gtoreq. 80 mL/min, 8 healthy volunteers; group IB, CCr .gtoreq. 80 mL/min, 8 patients with normal renal function); group II, CCr 79 to 50 mL/min, 7 patients with mild chronic renal failure (CRF); group III, CCr 49 to 20 mL/min, 10 patients with moderate CRF; and group IV, CCr .ltoreq. 19 mL/min, 5 patients with severe CRF. Plasma and urine samples were collected from patients for up to 120 h after dosing and from healthy volunteers for up to 24 h. PEG-Hi was well tolerated in all groups. No serious adverse events were noted. Cmax values were similar in all groups; area under the curve (AUC) increased in patients from 2.9 .+-. 1.0 .mu.g .bul. h/mL (IB) to 21.3 .+-. 5.0 .mu.g h/mL (IV). According to the severity of renal function, t1/2 was prolonged from 2 h (IB) to 38.4 h (IV), while total body clearance (CTB), renal clearance (CRenal), and recovery of PEG-Hi in the urine (FEo-t) decreased as follows: CTB from 23.3 .+-. 6.6 (IB) to 2.9 .+-. 0.6 mL/min (IV), CRenal from 7.8 .+-. 5.0 (IB) to 0.8 .+-. 0.5 mL/min (IV), and FEo-t from 40.2 .+-. 18.9% (IB) to 12.6 .+-. 13.0% (IV). Total plasma clearance of PEG-Hi was well correlated with CCr. Anti-IIa activity of PEG-Hi showed a closer linear relationship to ecarin clotting time than to activated partial thromboplastin time. Conclusion. Hence, PEG-Hi is considered safe in patients with CRF, but dosing and/or dose intervals should be adjusted according to the severity of renal impairment. Ecarin clotting time is well suited for safe and reliable monitoring of PEG-Hi.

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L3           23 S L2(L)(ESTER? OR CARBOXYL?)
L4           17 S L3 AND PY>1998
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     FILE 'HCAPLUS' ENTERED AT 15:42:27 ON 13 JAN 2001
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L35          16 S L33 AND L34     16 cpds w/ 43 cpds displayed
L36           4 S L33 NOT L35     4 cites no cpds
L37           1 S L29 AND LINKER     1 cite
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L45         86015 S L42 SSS FUL SUB=L43
L46             1 S PEG/CN

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     FILE 'HCAPLUS' ENTERED AT 17:29:19 ON 13 JAN 2001
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241789 polymers w/ polyacylate - parent set

86,015 compound in subset #1

cites for searched acrylate polymers

PEG

1 cite

30 cites before priority date

13 cites - only selected shown (not related to toner etc)

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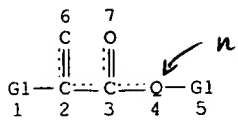

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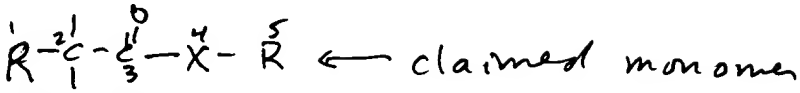

← claimed monomer

Ak @8 Cy @10

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DEFAULT MLEVEL IS ATOM
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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS   9

STEREO ATTRIBUTES: NONE
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L45       86015 SEA FILE=REGISTRY SUB=L43 SSS FUL L42
L47      121755 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L45
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← parent set - any polymer w/ acrylate monomer

=> d bib abs hitstr L7 1

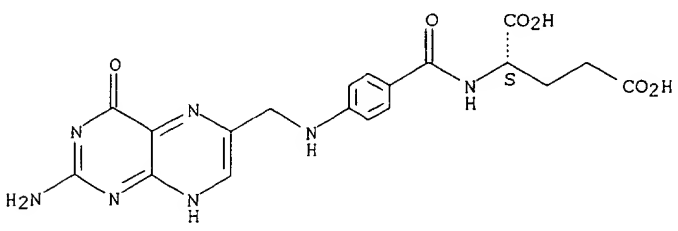
L7 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2001 ACS
AN 1998:764310 HCAPLUS
DN 130:29216
TI Conjugate comprising a folic acid antagonist and a carrier
IN Sinn, Hannsjoerg; Schrenk, Hans-Herman; Maier-Borst, Wolfgang; Frei, Eva; Stehle, Gerd
PA Deutsches Krebsforschungszentrum Stiftung Des Oeffentlichen Rechts, Germany
SO PCT Int. Appl., 25 pp.
CODEN: PIXXD2
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9851349	A1	19981119	WO 1998-EP2701	19980508
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	EP 879604	A1	19981125	EP 1997-107657	19970509
	R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE				
	AU 9879109	A1	19981208	AU 1998-79109	19980508
PRAI	EP 1997-107657	19970509			
	WO 1998-EP2701	19980508			

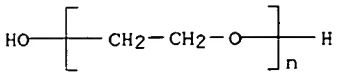
AB Conjugates comprising a D enantiomer of a folic acid antagonist and a carrier are provided for use in treatment of tumors, inflammation, and autoimmune diseases. The folic acid antagonist moiety is e.g. D-amethopterin or D-aminopterin, and is conjugated (preferably via a cleavable **linker**) to a protein (e.g. serum albumin) or polyether (e.g. **PEG**) which serves as carrier. The D enantiomers are taken up preferentially by tumor cells and other diseased tissues, and cause less toxic side effects than their L counterparts. Thus, D-methotrexate was converted to its N-hydroxysuccinimidyl **ester**, which was then coupled to human serum albumin. Rats treated with this conjugate (2 .times. 4 mg by injection) showed no side effects, whereas the corresponding L-methotrexate conjugate at the same dosage had severe to fatal side effects. Rats with Walker 256 carcinosarcomas showed 100% remission after treatment with the D-methotrexate conjugate (3 .times. 4 mg).

IT **59-30-3D**, Folic acid, analogs, conjugates **25322-68-3D**, PEG, conjugates with folate analogs **51865-79-3D**, D-Amethopterin, conjugates **143873-72-7D**, conjugates
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(conjugate comprising folic acid antagonist and carrier)
RN 59-30-3 HCAPLUS
CN L-Glutamic acid, N-[4-[[(2-amino-1,4-dihydro-4-oxo-6-pteridinyl)methyl]amino]benzoyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

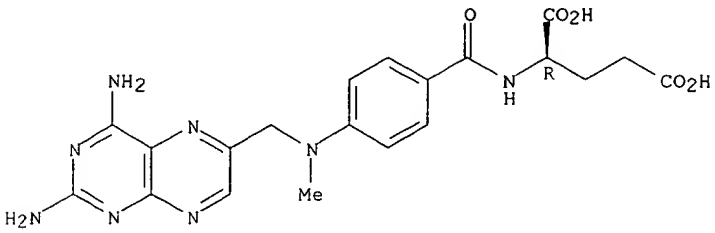


RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



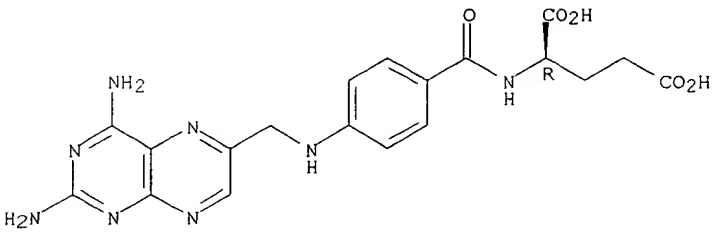
RN 51865-79-3 HCAPLUS
CN D-Glutamic acid, N-[4-[[(2,4-diamino-6-pteridinyl)methyl]methylamino]benzoyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

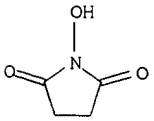


RN 143873-72-7 HCAPLUS
CN D-Glutamic acid, N-[4-[[(2,4-diamino-6-pteridinyl)methyl]amino]benzoyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

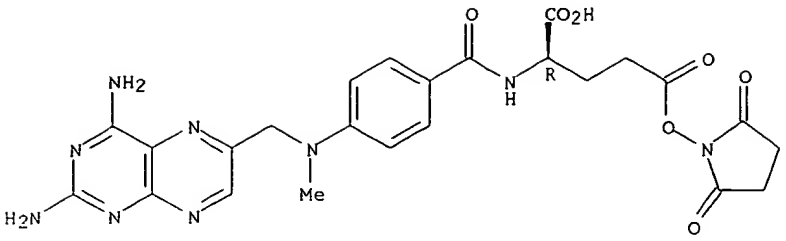


IT **6066-82-6**, N-Hydroxysuccinimide
RL: RCT (Reactant)
(conjugate comprising folic acid antagonist and carrier)
RN 6066-82-6 HCAPLUS
CN 2,5-Pyrrolidinedione, 1-hydroxy- (9CI) (CA INDEX NAME)



IT **216307-38-9P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(conjugate comprising folic acid antagonist and carrier)
RN 216307-38-9 HCAPLUS
CN D-Norvaline, N-[4-[[(2,4-diamino-6-pteridinyl)methyl]methylamino]benzoyl]-5-[(2,5-dioxo-1-pyrrolidinyl)oxy]-5-oxo- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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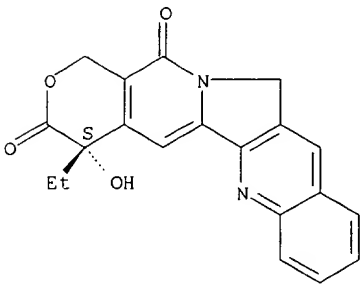
(1) Cytogen Corp; EP 0251455 A 1988 HCAPLUS
(2) Eyles, C; WO 8500812 A 1985 HCAPLUS
(4) Jackman, A; Adv Exp Med Biol 1993, V338, P579 HCAPLUS
(5) Krebsforsch, D; DE 4122210 A 1993 HCAPLUS
(6) Lee, W; J Med Chem 1974, V17(3), P326 HCAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d bib abs hitstr L7 2

L7 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2001 ACS
AN 1998:349269 HCAPLUS
DN 129:122786
TI Camptothecin-20-PEG ester transport forms: the effect of spacer groups on antitumor activity
AU Greenwald, Richard B.; Pendri, Annapurna; Conover, Charles D.; Lee, Chyi; Choe, Yun H.; Gilbert, Carl; Martinez, Anthony; Xia, Jing; Wu, Dechun; Hsue, Mei-Mann
CS Enzon, Inc., Piscataway, NJ, 08854-3969, USA
SO Bioorg. Med. Chem. (1998), 6(5), 551-562
CODEN: BMECEP; ISSN: 0968-0896
PB Elsevier Science Ltd.
DT Journal
LA English
AB An improved synthesis of the hindered **PEG**-camptothecin diester transport form has been achieved using the Mukaiyama reagent. The authors have also assessed the effect of changing the electronic configuration of the d-position of **PEG**-camptothecin transport forms on the rates of hydrolysis of the pro-moiety, and attempted to correlate these differences to efficacy in two animal models. In addn. to the simple substitution of N for O, other synthetic modifications of these atoms were accomplished by employing heterobifunctional **linker** groups. The half lives by disappearance (rates of hydrolysis) of the transport forms in buffer and rat plasma were detd. It was established that anchimeric assistance to hydrolytic breakdown of the pro-moiety occurs in a predictable manner for some of these compds. Results for the new derivs. in a P388 murine leukemic model and HT-29 human colorectal xenograft study are also presented. The use of a glycine **linker** group was found to provide similar efficacy in rodent models to that of simple camptothecin 20-**PEG ester**, and displayed enhanced pharmacokinetics.
IT **7689-03-4**, Camptothecin
RL: BAC (Biological activity or effector, except adverse); RCT (Reactant); BIOL (Biological study)
(effect of spacer groups on antitumor activity of camptothecin-20-PEG ester transport forms)
RN 7689-03-4 HCAPLUS
CN 1H-Pyrano[3',4':6,7]indolizino[1,2-b]quinoline-3,14(4H,12H)-dione, 4-ethyl-4-hydroxy-, (4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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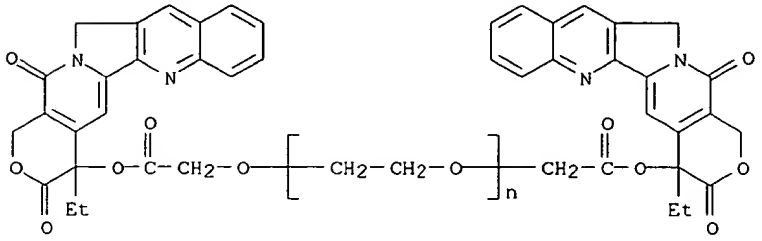
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(effect of spacer groups on antitumor activity of camptothecin-20-PEG ester transport forms)
RN 176325-75-0 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-[2-[[(4S)-4-ethyl-3,4,12,14-tetrahydro-3,14-dioxo-1H-pyrano[3',4':6,7]indolizino[1,2-b]quinolin-4-yl]oxy]-2-

oxoethyl]-.omega.-[2-[[(4S)-4-ethyl-3,4,12,14-tetrahydro-3,14-dioxo-1H-pyrano[3',4':6,7]indolizino[1,2-b]quinolin-4-yl]oxy]-2-oxoethoxy]- (9CI) (CA INDEX NAME)



RN 182064-91-1 HCAPLUS
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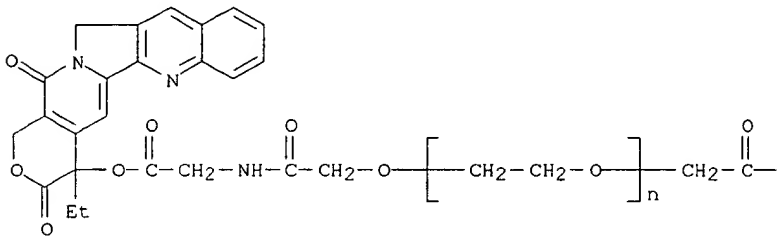
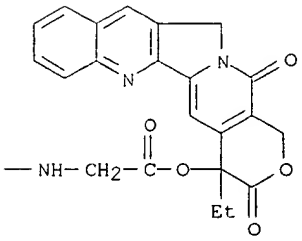
PAGE 1-A



PAGE 1-B



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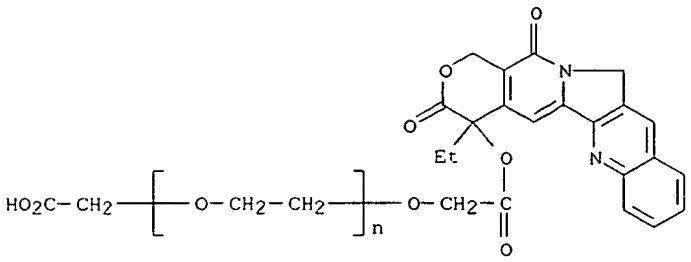
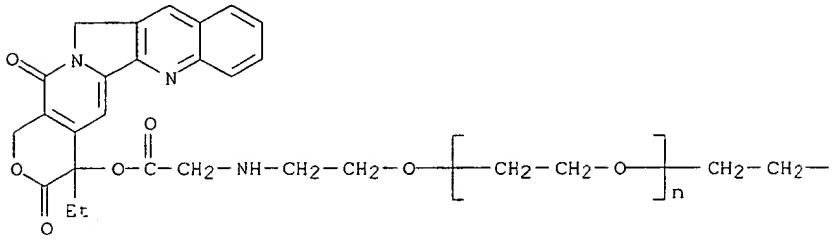
CN Poly(oxy-1,2-ethanediyl), .alpha.-(carboxymethyl)-.omega.-[2-[[(4S)-4-ethyl-3,4,12,14-tetrahydro-3,14-dioxo-1H-pyrano[3',4':6,7]indolizino[1,2-b]quinolin-4-yl]oxy]-2-oxoethoxy]- (9CI) (CA INDEX NAME)

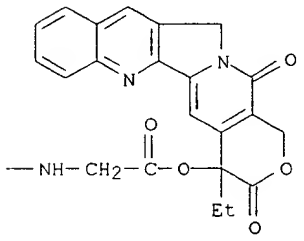


RN 204133-55-1 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-[2-[[2-[[(4S)-4-ethyl-3,4,12,14-tetrahydro-3,14-dioxo-1H-pyrano[3',4':6,7]indolizino[1,2-b]quinolin-4-yl]oxy]-2-oxoethyl]amino]ethyl]-.omega.-[2-[[2-[[(4S)-4-ethyl-3,4,12,14-tetrahydro-3,14-dioxo-1H-pyrano[3',4':6,7]indolizino[1,2-b]quinolin-4-yl]oxy]-2-oxoethyl]amino]ethoxy]- (9CI) (CA INDEX NAME)

PAGE 1-A

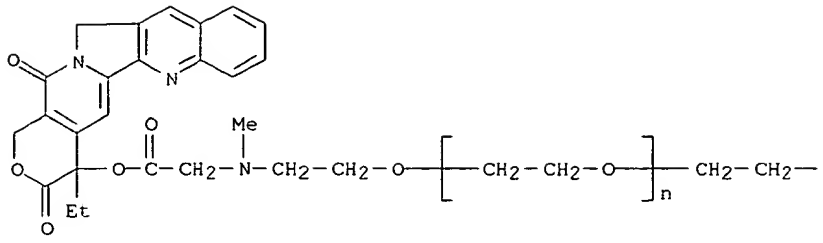


PAGE 1-B



RN 204133-58-4 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-[2-[[2-[[(4S)-4-ethyl-3,4,12,14-tetrahydro-3,14-dioxo-1H-pyrano[3',4':6,7]indolizino[1,2-b]quinolin-4-yl]oxy]-2-oxoethyl]methylamino]ethyl]-.omega.-[2-[[2-[[(4S)-4-ethyl-3,4,12,14-tetrahydro-3,14-dioxo-1H-pyrano[3',4':6,7]indolizino[1,2-b]quinolin-4-yl]oxy]-2-oxoethyl]methylamino]ethoxy]- (9CI) (CA INDEX NAME)

PAGE 1-A



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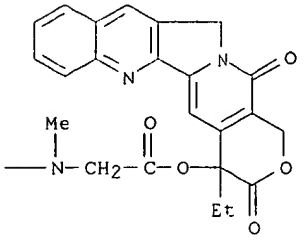

RN 204133-66-4 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-[2-[[2-[[(4S)-4-ethyl-3,4,12,14-tetrahydro-3,14-dioxo-1H-pyrano[3',4':6,7]indolizino[1,2-b]quinolin-4-yl]oxy]-2-oxoethyl]methylamino]-2-oxoethyl]-.omega.-[2-[[2-[[(4S)-4-ethyl-3,4,12,14-tetrahydro-3,14-dioxo-1H-pyrano[3',4':6,7]indolizino[1,2-b]quinolin-4-yl]oxy]-2-oxoethyl]methylamino]-2-oxoethoxy]- (9CI) (CA INDEX NAME)

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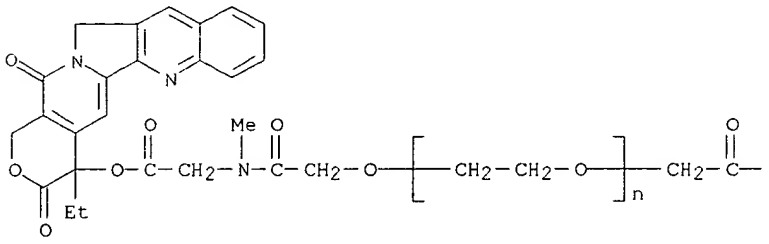

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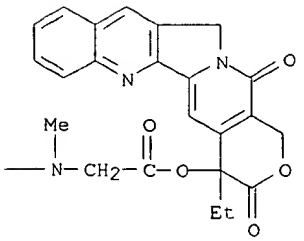

RN 210099-06-2 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-[[[2-[[(4S)-4-ethyl-3,4,12,14-

tetrahydro-3,14-dioxo-1H-pyrano[3',4':6,7]indolizino[1,2-b]quinolin-4-yl]oxy]-2-oxoethoxy]acetyl]amino]methyl]-.omega.-[[[[2-[[(4S)-4-ethyl-3,4,12,14-tetrahydro-3,14-dioxo-1H-pyrano[3',4':6,7]indolizino[1,2-b]quinolin-4-yl]oxy]-2-oxoethoxy]acetyl]amino]methoxy]- (9CI) (CA INDEX NAME)

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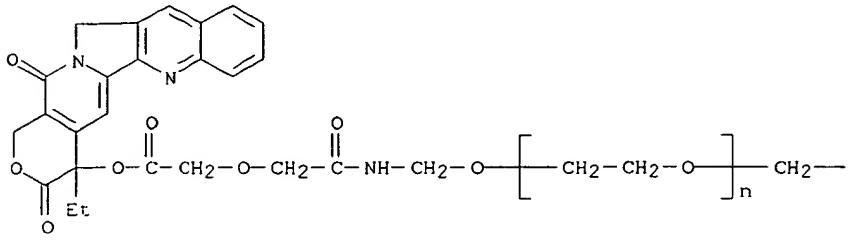

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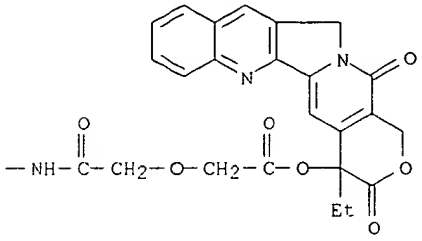

RN 210099-07-3 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha.-[[[[2-[[(4S)-4-ethyl-3,4,12,14-tetrahydro-3,14-dioxo-1H-pyrano[3',4':6,7]indolizino[1,2-b]quinolin-4-yl]oxy]-2-oxoethoxy]acetyl]methylamino]methyl]-.omega.-[[[[2-[[(4S)-4-ethyl-3,4,12,14-tetrahydro-3,14-dioxo-1H-pyrano[3',4':6,7]indolizino[1,2-b]quinolin-4-yl]oxy]-2-oxoethoxy]acetyl]methylamino]methoxy]- (9CI) (CA INDEX NAME)

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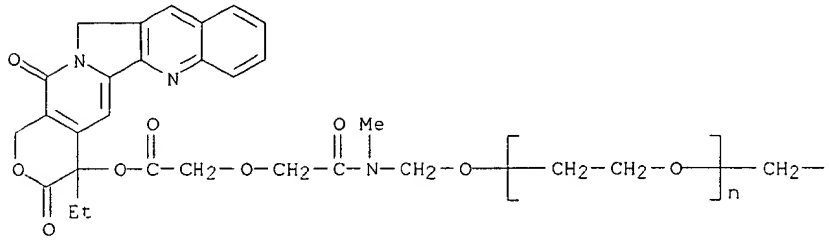
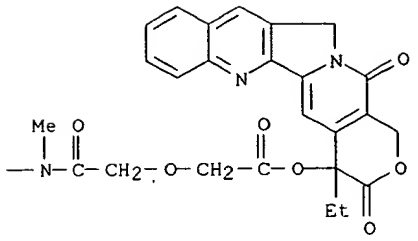


PAGE 1-B



RN 210099-08-4 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-[[[[2-[[(4S)-4-ethyl-3,4,12,14-tetrahydro-3,14-dioxo-1H-pyrano[3',4':6,7]indolizino[1,2-b]quinolin-4-yl]oxy]-2-oxoethoxy]carbonyl]amino]methyl]-.omega.-[[[[2-[[(4S)-4-ethyl-3,4,12,14-tetrahydro-3,14-dioxo-1H-pyrano[3',4':6,7]indolizino[1,2-b]quinolin-4-yl]oxy]-2-oxoethoxy]carbonyl]amino]methoxy]- (9CI) (CA INDEX NAME)

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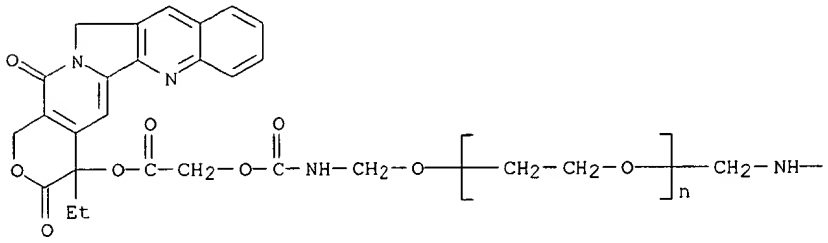
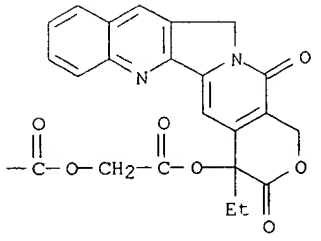


PAGE 1-B



RN 210099-09-5 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-[[[[2-[[(4S)-4-ethyl-3,4,12,14-tetrahydro-3,14-dioxo-1H-pyrano[3',4':6,7]indolizino[1,2-b]quinolin-4-yl]oxy]-2-oxoethoxy]carbonyl]methylamino]methyl]-.omega.-[[[[2-[[(4S)-4-ethyl-3,4,12,14-tetrahydro-3,14-dioxo-1H-pyrano[3',4':6,7]indolizino[1,2-b]quinolin-4-yl]oxy]-2-oxoethoxy]carbonyl]methylamino]methoxy]- (9CI) (CA INDEX NAME)

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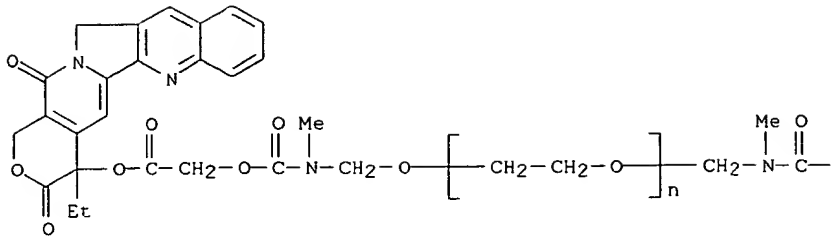
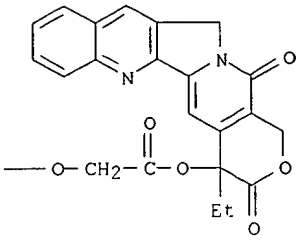
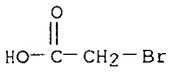


PAGE 1-B

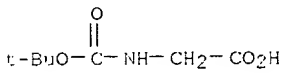


IT **79-08-3**, Bromoacetic acid **4530-20-5 13734-36-6**
30379-55-6 39927-08-7 88849-29-0
120289-22-7 210099-05-1
RL: RCT (Reactant)
(effect of spacer groups on antitumor activity of camptothecin-20-PEG ester transport forms)

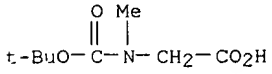
RN 79-08-3 HCAPLUS
CN Acetic acid, bromo- (8CI, 9CI) (CA INDEX NAME)



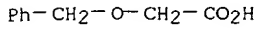
RN 4530-20-5 HCAPLUS
CN Glycine, N-[(1,1-dimethylethoxy)carbonyl]- (9CI) (CA INDEX NAME)



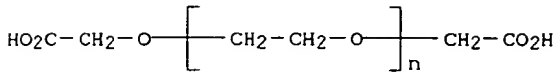
RN 13734-36-6 HCAPLUS
CN Glycine, N-[(1,1-dimethylethoxy)carbonyl]-N-methyl- (9CI) (CA INDEX NAME)



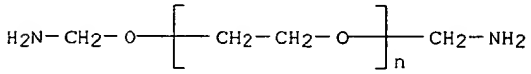
RN 30379-55-6 HCAPLUS
CN Acetic acid, (phenylmethoxy)- (9CI) (CA INDEX NAME)



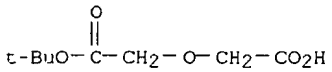
RN 39927-08-7 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-(carboxymethyl)-.omega.-(carboxymethoxy)-
(9CI) (CA INDEX NAME)



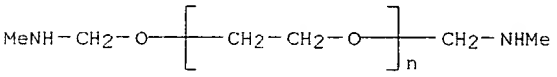
RN 88849-29-0 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-(aminomethyl)-.omega.-(aminomethoxy)-
(9CI) (CA INDEX NAME)



RN 120289-22-7 HCAPLUS
CN Acetic acid, (carboxymethoxy)-, 1-(1,1-dimethylethyl) ester (9CI) (CA
INDEX NAME)

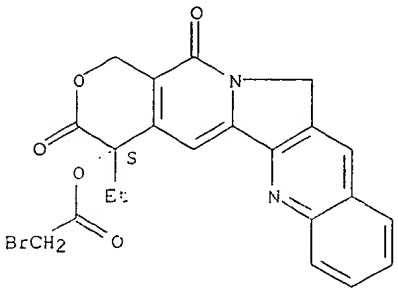


RN 210099-05-1 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-[(methylamino)methyl]-.omega.-
[(methylamino)methoxy]- (9CI) (CA INDEX NAME)



IT **182064-93-3P 204133-16-4P 204133-17-5P**
204133-18-6P 204133-21-1P 204133-23-3P
204133-60-8P 204133-64-2P 204133-72-2P
204133-74-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(effect of spacer groups on antitumor activity of camptothecin-20-PEG
ester transport forms)
RN 182064-93-3 HCAPLUS
CN Acetic acid, bromo-, (4S)-4-ethyl-3,4,12,14-tetrahydro-3,14-dioxo-1H-
pyrano[3',4':6,7]indolizino[1,2-b]quinolin-4-yl ester (9CI) (CA INDEX
NAME)

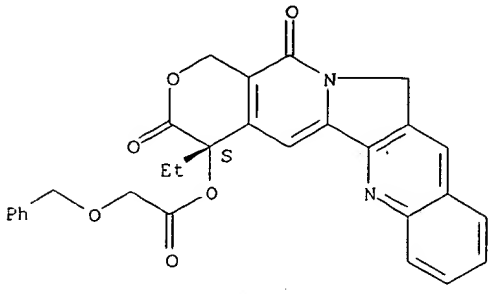
Absolute stereochemistry.



RN 204133-16-4 HCAPLUS

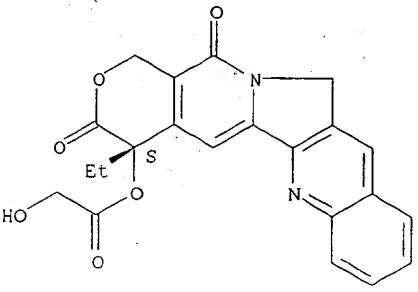
CN Acetic acid, (phenylmethoxy)-, (4S)-4-ethyl-3,4,12,14-tetrahydro-3,14-dioxo-1H-pyrano[3',4':6,7]indolizino[1,2-b]quinolin-4-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



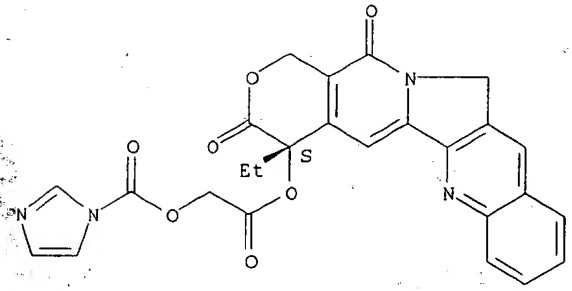
RN 204133-17-5 HCAPLUS
CN Acetic acid, hydroxy-, (4S)-4-ethyl-3,4,12,14-tetrahydro-3,14-dioxo-1H-pyrano[3',4':6,7]indolizino[1,2-b]quinolin-4-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



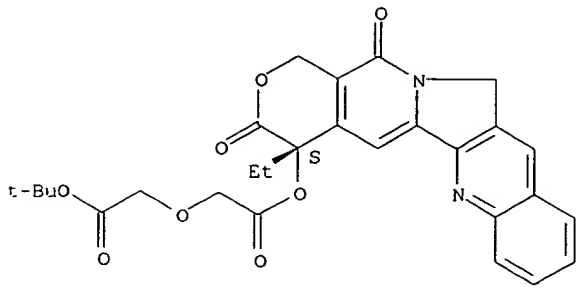
RN 204133-18-6 HCAPLUS
CN 1H-Imidazole-1-carboxylic acid, 2-[[(4S)-4-ethyl-3,4,12,14-tetrahydro-3,14-dioxo-1H-pyrano[3',4':6,7]indolizino[1,2-b]quinolin-4-yl]oxy]-2-oxoethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



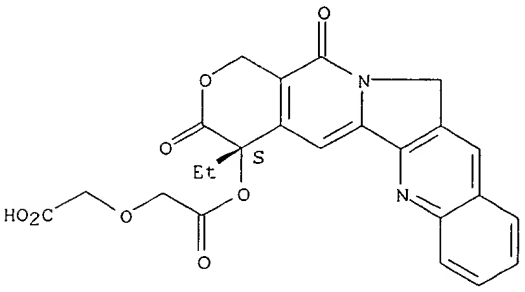
RN 204133-21-1 HCAPLUS
CN Acetic acid, [2-(1,1-dimethylethoxy)-2-oxoethoxy]-, (4S)-4-ethyl-3,4,12,14-tetrahydro-3,14-dioxo-1H-pyrano[3',4':6,7]indolizino[1,2-b]quinolin-4-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



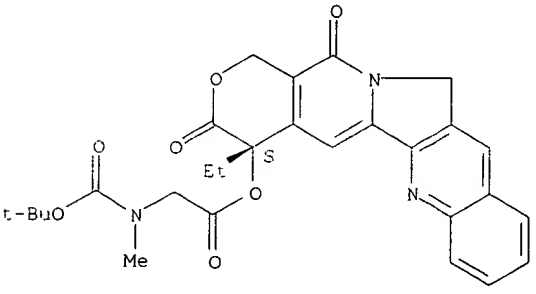
RN 204133-23-3 HCAPLUS
CN Acetic acid, (carboxymethoxy)-, 1-[(4S)-4-ethyl-3,4,12,14-tetrahydro-3,14-dioxo-1H-pyrano[3',4':6,7]indolizino[1,2-b]quinolin-4-yl] ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 204133-60-8 HCAPLUS
CN Glycine, N-[(1,1-dimethylethoxy)carbonyl]-N-methyl-, (4S)-4-ethyl-3,4,12,14-tetrahydro-3,14-dioxo-1H-pyrano[3',4':6,7]indolizino[1,2-b]quinolin-4-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

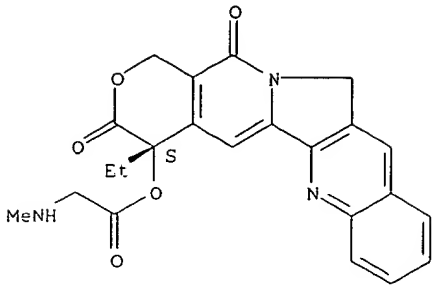


RN 204133-64-2 HCAPLUS
CN Glycine, N-methyl-, (4S)-4-ethyl-3,4,12,14-tetrahydro-3,14-dioxo-1H-pyrano[3',4':6,7]indolizino[1,2-b]quinolin-4-yl ester, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

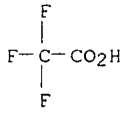
CRN 204133-63-1
CMF C23 H21 N3 O5

Absolute stereochemistry.



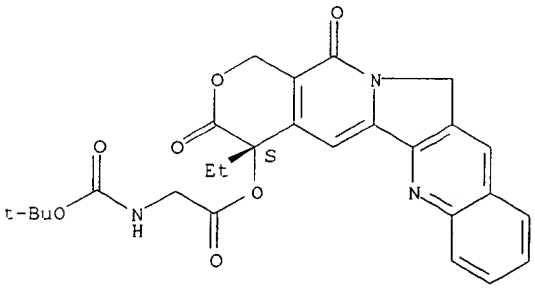
CM 2

CRN 76-05-1
CMF C2 H F3 O2



RN 204133-72-2 HCAPLUS
CN Glycine, N-[(1,1-dimethylethoxy)carbonyl]-, (4S)-4-ethyl-3,4,12,14-tetrahydro-3,14-dioxo-1H-pyrano[3',4':6,7]indolizino[1,2-b]quinolin-4-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

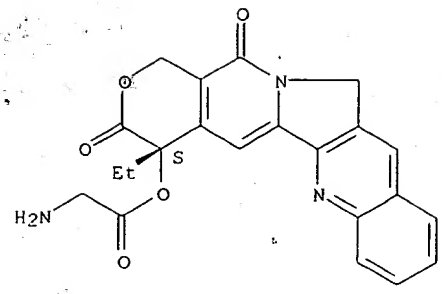


RN 204133-74-4 HCAPLUS
CN Glycine, (4S)-4-ethyl-3,4,12,14-tetrahydro-3,14-dioxo-1H-pyrano[3',4':6,7]indolizino[1,2-b]quinolin-4-yl ester, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

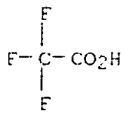
CRN 176669-13-9
CMF C22 H19 N3 O5
CDES 1:S

Absolute stereochemistry.



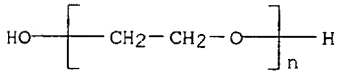
CM 2

CRN 76-05-1
CMF C2 H F3 O2



=> d bib abs hitstr L7 3

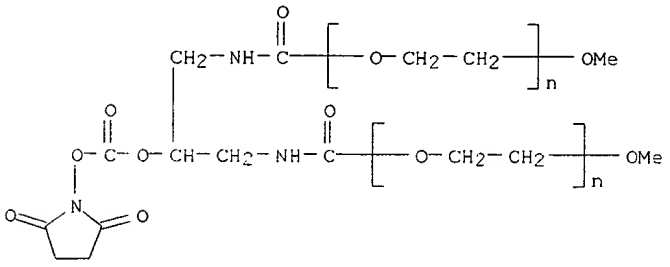
L7 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2001 ACS
AN 1997:758258 HCAPLUS
DN 128:23107
TI Hydrazide derivatives of poly(ethylene glycol) and their bioconjugates
AU Zalipsky, Samuel; Menon-Rudolph, Sunitha
CS SEQUUS Pharmaceuticals, Inc., Menlo Park, CA, 94025, USA
SO ACS Symp. Ser. (1997), 680(Poly(ethylene glycol)), 318-341
CODEN: ACSMC8; ISSN: 0097-6156
PB American Chemical Society
DT Journal; General Review
LA English
AB A review with 51 refs. Hydrazide derivs. of poly(ethylene glycol) (**PEG**-Hz) have a no. of attributes making them useful for prepn. of conjugates, particularly of polypeptides and glycoproteins. They form conjugates in mildly acidic aq. solns. via two modes of reactivity. The first one involves hydrazone formation with reactive carbonyls generated on the substrate mol. by several different methods. These include oxidn. of oligosaccharide residues of glycoproteins, glyoxylate/Cu2+-mediated transamination of the N-terminal residue of polypeptides, periodate oxidn. of N-terminal Ser or Thr residues. The second mode involves coupling with carbodiimide-activated **carboxyl** groups forming diacylhydrazide linkages with **PEG**. Synthesis of **PEG**-Hz is straightforward by hydrazinolysis of **esters** of either carboxymethylated **PEG** or urethane-linked amino acid. Having an unusual amino acid, e.g., .beta.-Ala, as part of the **linker** offers a convenient way for compn. detn. of protein conjugates, particularly those contg. multiple chains of mPEG-O(C=O)-.beta.-Ala-Hz, by amino acid anal. Our work involving **PEG**-HZ conjugation, including examples of prepn. of N-terminally modified polypeptides, oligosaccharide-linked glycoproteins, polypeptides modified on their **carboxyl** groups, and immunoconjugates of enzymes and liposomes is discussed.
IT **25322-68-3**, Peg
RL: RCT (Reactant)
(polypeptide and glycoprotein prepn. using hydrazide derivs. of poly(ethylene glycol))
RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



=> d bib abs hitstr L7 4

L7 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2001 ACS
AN 1997:534212 HCAPLUS
DN 127:234722
TI Branched poly(ethylene glycol) linkers
AU Martinez, Anthony; Pendri, Annapurna; Xia, Jing; Greenwald, Richard B.
CS ENZON Inc., Piscataway, NJ, 08854, USA
SO Macromol. Chem. Phys. (1997), 198(8), 2489-2498
CODEN: MCHPES; ISSN: 1022-1352
PB Huethig & Wepf
DT Journal
LA English
AB Novel types of methoxy poly(ethylene glycol) (**PEG**) **linkers** (U-**PEG linkers**) were synthesized. These **PEG linkers** are linear polymers that attach to bioactive agents via a functional group, derived from a 2.degree. alc., located in the center of the polymer chain vs. the traditional terminal attachment site. These new types of **linkers** can be prepd. with different functional groups (e.g. active **ester**, succinimidyl carbonate, and carbazate) for selected point of attachment, including ethylene oxide oligomers to provide stems when steric factors need to be addressed. Conversion of p-nitrophenyl carbonates to the more desirable succinimidyl carbonates was also accomplished by a novel nucleophilic displacement procedure. Modification of proteins with these reagents is easily accomplished and is illustrated by the conjugation of a U-**PEG linker** with L-asparaginase.
IT **9015-68-3D**, L-Asparaginase, reaction products with poly(ethylene glycol) derivs. **165457-98-7D**, L-asparaginase conjugates **165458-03-7D**, L-asparaginase conjugates
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(prepn. of diaminopropanol-branched poly(ethylene glycol)s for asparaginase modification)
RN 9015-68-3 HCAPLUS
CN Asparaginase (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 165457-98-7 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.'-[[2-[[[(2,5-dioxo-1-pyrrolidinyl)oxy]carbonyl]oxy]-1,3-propanediyl]bis(iminocarbonyl)]bis[.omega.-methoxy- (9CI) (CA INDEX NAME)



RN 165458-03-7 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.'-[[2-[[[[2-[2-[[[(2,5-dioxo-1-pyrrolidinyl)oxy]carbonyl]oxy]ethoxy]ethyl]amino]carbonyl]oxy]-1,3-propanediyl]bis(iminocarbonyl)]bis[.omega.-methoxy- (9CI) (CA INDEX NAME)

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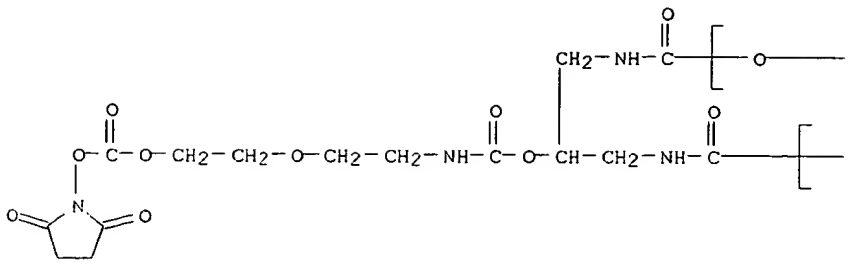

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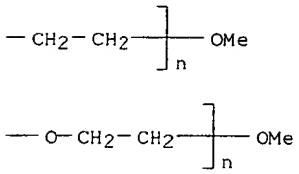
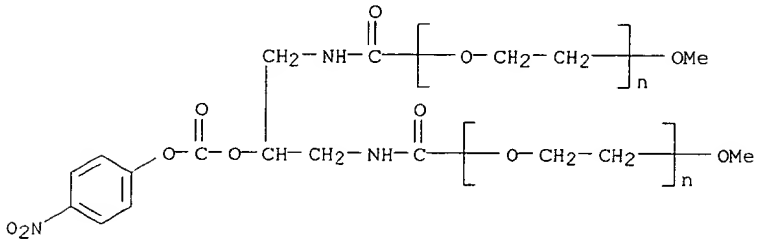
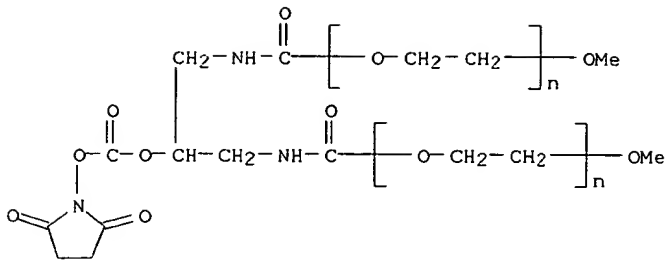


IT **165457-97-6P 165457-98-7P 165458-01-5P**
165458-02-6P 165458-03-7P 168850-79-1P
195257-56-8P 195257-63-7P 195257-65-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. of diaminopropanol-branched poly(ethylene glycol)s for asparaginase modification)

RN 165457-97-6 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.'-[[2-[[(4-nitrophenoxy)carbonyl]oxy]-1,3-propanediyl]bis(iminocarbonyl)]bis[.omega.-methoxy- (9CI) (CA INDEX NAME)



RN 165457-98-7 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.'-[[2-[[[(2,5-dioxo-1-pyrrolidinyl)oxy]carbonyl]oxy]-1,3-propanediyl]bis(iminocarbonyl)]bis[.omega.-methoxy- (9CI) (CA INDEX NAME)



RN 165458-01-5 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.'-[[2-[[[[2-(2-hydroxyethoxy)ethyl]amino]carbonyl]oxy]-1,3-propanediyl]bis(iminocarbonyl)]bis[.omega.-methoxy- (9CI) (CA INDEX NAME)

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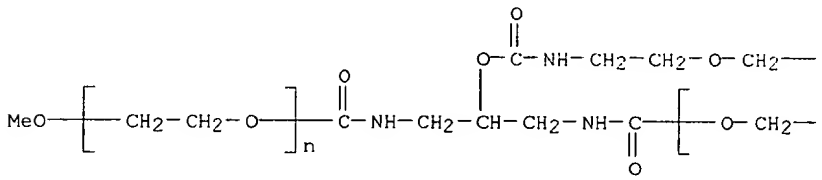
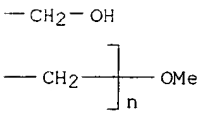


PAGE 1-B



RN 165458-02-6 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.'-[[2-[[[[2-[2-[[(4-nitrophenoxy)carbonyl]oxy]ethoxy]ethyl]amino]carbonyl]oxy]-1,3-propanediyl]bis(iminocarbonyl)]bis[.omega.-methoxy- (9CI) (CA INDEX NAME)

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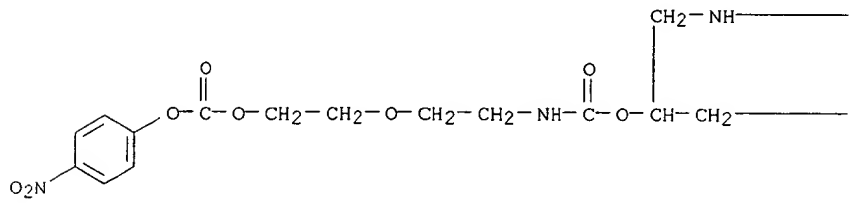

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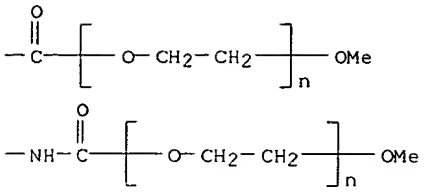

RN 165458-03-7 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.'-[[2-[[[[2-[2-[[[[2,5-dioxo-1-pyrrolidinyl]oxy]carbonyl]oxy]ethoxy]ethyl]amino]carbonyl]oxy]-1,3-propanediyl]bis(iminocarbonyl)]bis[.omega.-methoxy- (9CI) (CA INDEX NAME)

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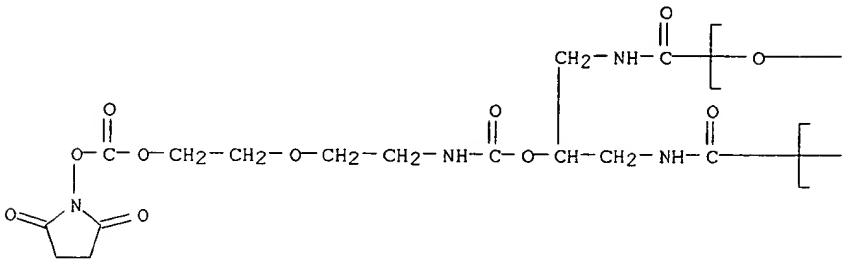

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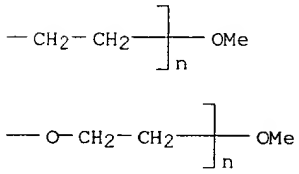

RN 168850-79-1 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.'-[(2-hydroxy-1,3-propanediyl)bis(iminocarbonyl)]bis[.omega.-methoxy- (9CI) (CA INDEX NAME)

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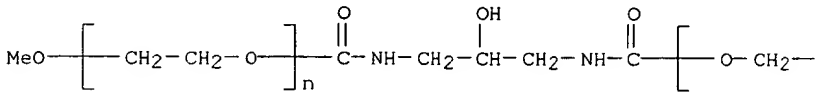

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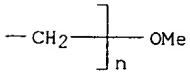

RN 195257-56-8 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.'-[[2-[(hydrazinocarbonyl)oxy]-1,3-propanediyl]bis(iminocarbonyl)]bis[.omega.-methoxy- (9CI) (CA INDEX

NAME)

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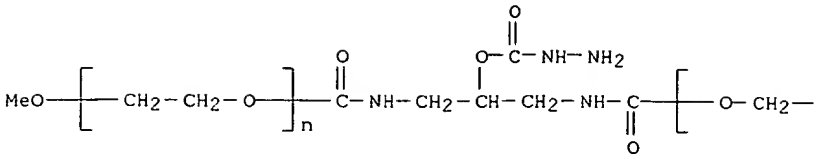

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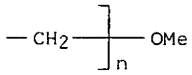

RN 195257-63-7 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-methoxy-, ester with [(2-hydroxy-1,3-propanediyl)bis[iminocarbonyloxy[2-[(carboxyamino)methyl]-2,1-ethanediyl]]]bis[carbamic acid] (4:1) (9CI) (CA INDEX NAME)

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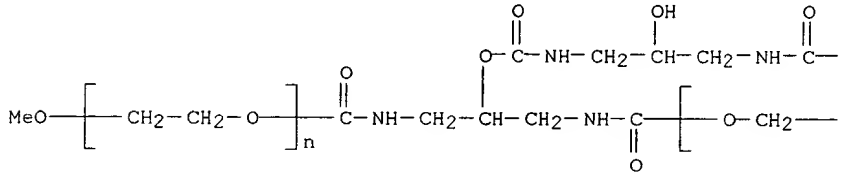
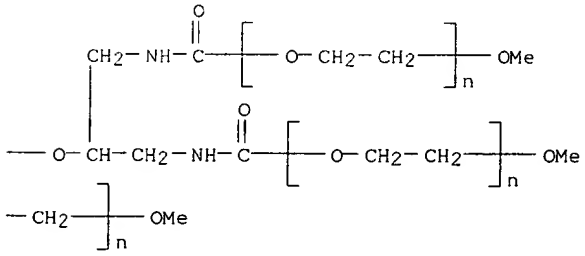


PAGE 1-B



RN 195257-65-9 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.',.alpha.'',.alpha.'''-[[2-[[(4-nitrophenoxy)carbonyl]oxy]-1,3-propanediyl]bis[iminocarbonyloxy-2,1,3-propanetriylbis(iminocarbonyl)]]tetrakis[.omega.-methoxy- (9CI) (CA INDEX NAME)

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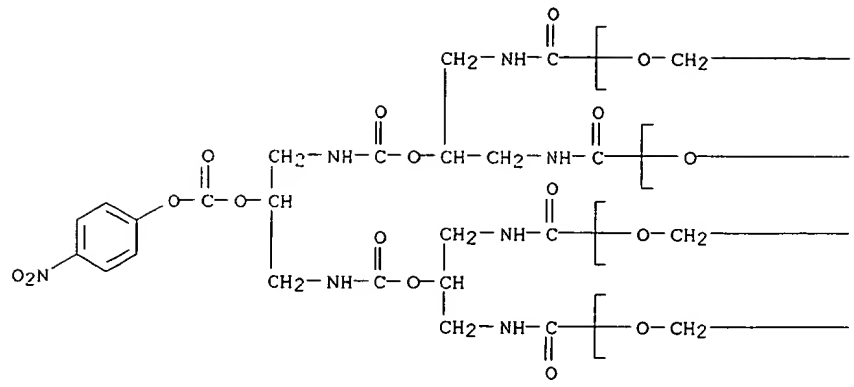

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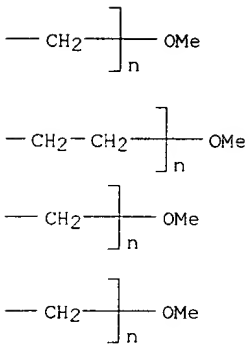
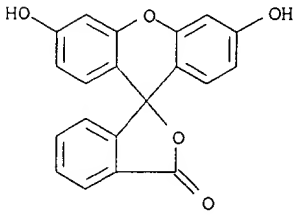


=> d bib abs hitstr L7 5

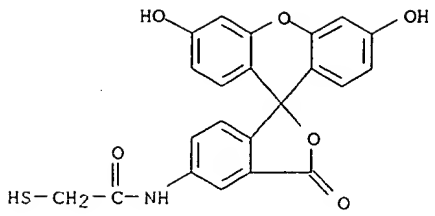
L7 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2001 ACS
AN 1989:628613 HCAPLUS
DN 111:228613
TI Fluorescein-conjugated proteins with enhanced fluorescence
IN Ronald, Robert C.; Nguyen Phuc Huu; Rowley, Gerald L.
PA Sclavo, Inc., USA
SO PCT Int. Appl., 30 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 8900291	A1	19890112	WO 1988-US2240	19880701
	W: AU, JP				
	RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
	US 4894348	A	19900116	US 1987-69288	19870701
	AU 8820868	A1	19890130	AU 1988-20868	19880701
PRAI	US 1987-69288		19870701		
	WO 1988-US2240		19880701		

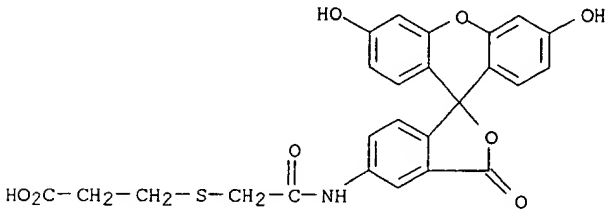
OS MARPAT 111:228613
AB A method for detn. of an analyte, which comprises at least the step of binding a fluorescent-labeled reagent to the analyte, uses a fluorescent-labeled reagent which is a ligand labeled with a substituent FlNHCZCR2 (I; Fl = fluorescein; Z = O, S; R = H, C1-4 alkyl). Fluorescein I (5-Fl-NHCOCH2S(CH2)2COOEt) (II) was prepd. from the reaction of 3-mercaptopropionic acid (80 .mu.L in 6 mL DMF and 3 mL 50 mM phosphate, 2.5 mM EDTA buffer, pH 6.30) with 5-iodoacetamidofluorescein (200 mg in 7 mL DMF and 4 mL of the same buffer) in Tris buffer overnight at 50.degree.. II 1.28 was reacted with N-hydroxysuccinimide 3.45 and 1-(3-dimethylaminopropyl)-3-ethylcarbodiimide 4.22 mg in anhyd. DMF for 7 h at room temp. The resultant N-hydroxysuccinimide **ester** was conjugated to rabbit IgG Fab' fragments, which were then conjugated to .alpha.-fetoprotein through a sulfosuccinimidyl **linker**. Patient serum samples, the labeled .alpha.-fetoprotein reagent, buffer, and goat anti-.alpha.-fetoprotein antibody were mixed and incubated for 2.5 h at 37.degree.. Rabbit antigoat Ig antibody was added, followed by **PEG** and incubation for 30 min at room temp. The ppt. was dissolved in measurement buffer and fluorescence was measured. .alpha.-Fetoprotein was detd. by comparison to a std. curve.
IT **2321-07-5D**, Fluorescein, amido derivs.
RL: ANST (Analytical study)
(ligands labeled with, for fluorescence anal.)
RN 2321-07-5 HCAPLUS
CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 3',6'-dihydroxy- (9CI) (CA INDEX NAME)



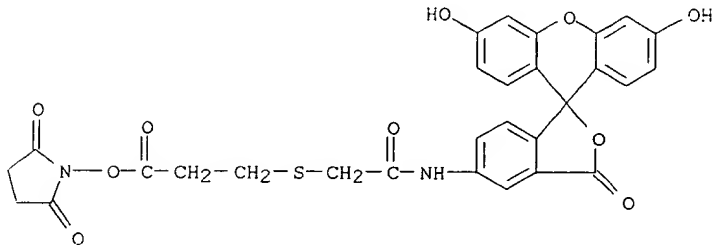
IT **120858-32-4P 123740-08-9P 123761-26-2P**
123761-27-3P 123761-28-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as fluorescent label)
RN 120858-32-4 HCAPLUS
CN Acetamide, N-(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)-2-mercapto- (9CI) (CA INDEX NAME)



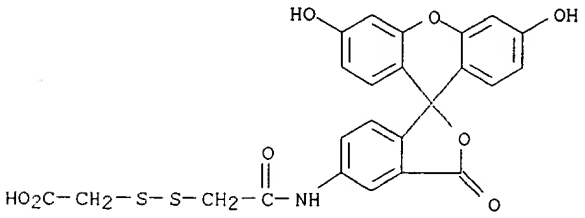
RN 123740-08-9 HCAPLUS
CN Propanoic acid, 3-[[2-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)amino]-2-oxoethyl]thio]- (9CI) (CA INDEX NAME)



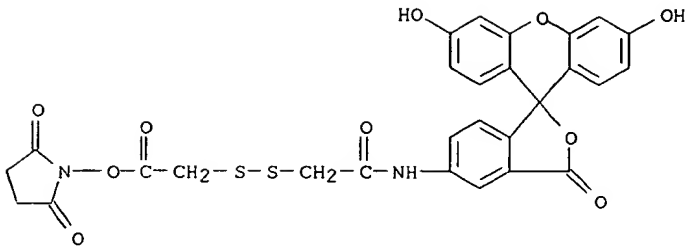
RN 123761-26-2 HCAPLUS
CN Acetamide, N-(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)-2-[[3-[(2,5-dioxo-1-pyrrolidinyl)oxy]-3-oxopropyl]thio]- (9CI) (CA INDEX NAME)



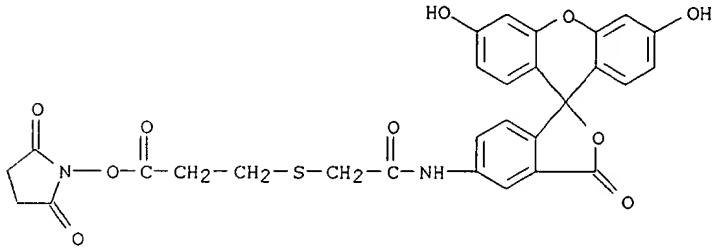
RN 123761-27-3 HCAPLUS
CN Acetic acid, [[2-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)amino]-2-oxoethyl]dithio]- (9CI) (CA INDEX NAME)



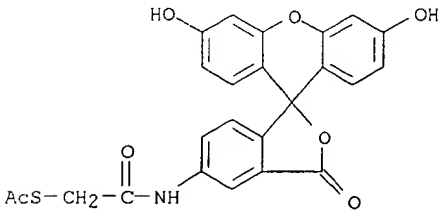
RN 123761-28-4 HCAPLUS
CN Acetamide, N-(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)-2-[[2-[(2,5-dioxo-1-pyrrolidinyl)oxy]-2-oxoethyl]dithio]- (9CI) (CA INDEX NAME)



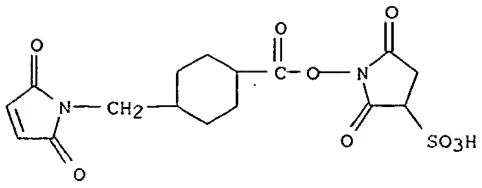
IT **123761-26-2DP**, IgG reaction products, .alpha.-fetoprotein conjugates
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as fluorescent tracer)
RN 123761-26-2 HCAPLUS
CN Acetamide, N-(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)-2-[[3-[(2,5-dioxo-1-pyrrolidinyl)oxy]-3-oxopropyl]thio]- (9CI) (CA INDEX NAME)



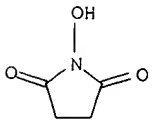
IT **123761-29-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, in prepn. of fluorescent label)
RN 123761-29-5 HCAPLUS
CN Ethanethioic acid, S-[2-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)amino]-2-oxoethyl] ester (9CI) (CA INDEX NAME)



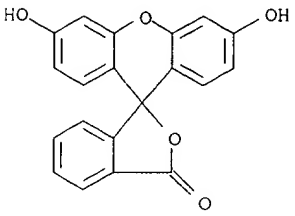
IT **103708-09-4DP**, .alpha.-fetoprotein reaction products
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, in prepn. of fluorescent tracer)
RN 103708-09-4 HCAPLUS
CN 3-Pyrrolidinesulfonic acid, 1-[[[4-[(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)methyl]cyclohexyl]carbonyl]oxy]-2,5-dioxo- (9CI) (CA INDEX NAME)



IT **6066-82-6**, N-Hydroxysuccinimide
RL: RCT (Reactant)
(reaction of, with dimethylaminopropylethylcarbodiimide hydrochloride and fluorescein deriv.)
RN 6066-82-6 HCAPLUS
CN 2,5-Pyrrolidinedione, 1-hydroxy- (9CI) (CA INDEX NAME)

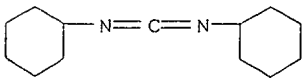


IT **27599-63-9**, Fluoresceinamine
RL: RCT (Reactant)
(reaction of, with dithiodiglycolic acid and DCC)
RN 27599-63-9 HCAPLUS
CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 5(or 6)-amino-3',6'-dihydroxy- (9CI) (CA INDEX NAME)



D1—NH_2

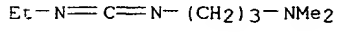
IT **538-75-0**, DCC
RL: RCT (Reactant)
(reaction of, with dithiodiglycolic acid and fluoresceinamine)
RN 538-75-0 HCAPLUS
CN Cyclohexanamine, N,N'-methanetetraylbis- (9CI) (CA INDEX NAME)



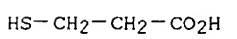
IT **505-73-7**, Dithiodiglycolic acid
RL: RCT (Reactant)
(reaction of, with fluoresceinamine and DCC)
RN 505-73-7 HCAPLUS
CN Acetic acid, 2,2'-dithiobis- (9CI) (CA INDEX NAME)

$HO_2C—CH_2—S—S—CH_2—CO_2H$

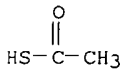
IT **7084-11-9**, 1-(3-Dimethylaminopropyl)-3-ethylcarbodiimide hydrochloride
RL: RCT (Reactant)
(reaction of, with hydroxysuccinimide and fluorescein deriv.)
RN 7084-11-9 HCAPLUS
CN 1,3-Propanediamine, N'-(ethylcarbonimidoyl)-N,N-dimethyl-, hydrochloride (9CI) (CA INDEX NAME)



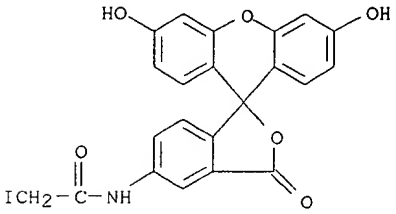
IT **107-96-0**, 3-Mercaptopropionic acid **10387-40-3**, Potassium thioacetate
RL: RCT (Reactant)
(reaction of, with iodoacetamidofluorescein)
RN 107-96-0 HCAPLUS
CN Propanoic acid, 3-mercapto- (9CI) (CA INDEX NAME)



RN 10387-40-3 HCAPLUS
CN Ethanethioic acid, potassium salt (9CI) (CA INDEX NAME)



IT **63368-54-7**, 5-(Iodoacetamido)-fluorescein
RL: RCT (Reactant)
(reaction of, with mercaptopropionic acid)
RN 63368-54-7 HCAPLUS
CN Acetamide, N-(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)-2-iodo- (9CI) (CA INDEX NAME)



=> D BIB ABS

L8 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2001 ACS
AN 1997:412371 HCAPLUS
DN 127:66152
TI Backbone amide (BAL) anchoring in solid-phase peptide synthesis
AU Jensen, Knud J.; Songster, Michael F.; Alsina, Jordi; Vagner, Josef; Albericio, Fernando; Barany, George
CS Department of Chemistry, University of Minnesota, Minneapolis, MN, 55455, USA
SO Innovation Perspect. Solid Phase Synth. Comb. Libr., Collect. Pap., Int. Symp., 4th (1996), Meeting Date 1995, 187-190. Editor(s): Epton, Roger. Publisher: Mayflower Scientific, Birmingham, UK.
CODEN: 64ONA9
DT Conference
LA English
AB A symposium report describing a backbone amide **linker** (BAL) approach for anchoring peptides during solid-phase synthesis with the goal of establishing a variety of C-terminal functionalities. Initial efforts on BAL adapted the chem. of the trifluoroacetic acid-labile PAL handle [5-(4'-aminomethyl-3',5'-dimethoxyphenoxy)valeric acid]. An aldehyde precursor to PAL was coupled by reductive amination to the .alpha.-amine of the prospective C-terminal amino acid, which was protected as a tert-Bu, Me, or allyl **ester**, or modified to an alc. or di-Me acetal. The resultant intermediates, all secondary amines, were protected with Fmoc to give preformed handles which were then attached to **PEG**-PS or PS supports and used to assemble peptides by std. Fmoc solid-phase chem. On-resin reductive amination variations were also explored.

=> D BIB ABS L10 1

L10 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2001 ACS
AN 2000:645678 HCAPLUS
DN 133:190191
TI Process of desorption of linker-bound substances from a polymeric surface using a polar organic solvent
IN Gotz, Nowak; Bucha, Elke
PA Haemosys G.m.b.H., Germany
SO Eur. Pat. Appl., 9 pp.
CODEN: EPXXDW
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1035130	A1	20000913	EP 2000-104418	20000303
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	DE 19909584	A1	20000914	DE 1999-19909584	19990304
	JP 2000297166	A2	20001024	JP 2000-59898	20000306
PRAI	DE 1999-19909584		19990304		

AB The invention concerns the desorption of **linker**-bound biol. substances from a polymeric adsorbent using polar org. solvents, e.g. alkanols and esters at up to 60 vol./vol.%. Thus **hirudin-PEG** bound to polymethylmethacrylate was eluted with a 40 vol./vol.% methanol soln.; the adsorbent could be reused for a further binding process.

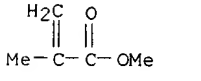
RE.CNT 2
RE
(1) Max-Planck Gesellschaft Zur FOrderung der Wissenschaft; WO 9846648 A 1998 HCAPLUS
(2) Max-Planck Gesellschaft Zur FOrderung der Wissenschaft E V; DE 19715504 A 1998 HCAPLUS

=> D HITSTR 1

L12 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2001 ACS
IT **9011-14-7**, Polymethylmethacrylate
RL: NUU (Nonbiological use, unclassified); USES (Uses)
(process of desorption of linker-bound substances from a polymeric surface using a polar org. solvent)
RN 9011-14-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 80-62-6
CMF C5 H8 O2

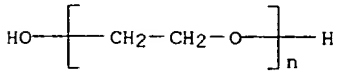


IT **67-56-1**, Methanol, properties **8001-27-2D**, **Hirudin**, conjugate with **PEG**, **hirudin-PEG 25322-68-3D**, **PEG**, conjugate with **hirudin**, **hirudin-PEG**
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(process of desorption of **linker**-bound substances from a polymeric surface using a polar org. solvent)
RN 67-56-1 HCAPLUS
CN Methanol (8CI, 9CI) (CA INDEX NAME)

H_3C-OH

RN 8001-27-2 HCAPLUS
CN Hirudin (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



=> d bib abs hitstr 2

L12 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2001 ACS
AN 2000:608630 HCAPLUS
DN 133:213218
TI Intraocular lens implants for the prevention of secondary cataracts
IN Bretton, Randolph H.
PA Bausch & Lomb Surgical, Inc., USA
SO PCT Int. Appl., 36 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000050101	A1	20000831	WO 2000-US2465	20000201

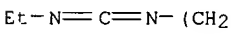
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

PRAI US 1999-257678 19990225

AB A surface treated intraocular lens (IOL) implant for use in the replacement of a cataract natural lens to prevent posterior cellular opacification. The surface treated IOL includes one or more polysaccharides chem. bound by a difunctional cross **linker** and a binding agent conjugated cytotoxic agent. The preferred embodiment includes **heparin** of chondroitin chem. coupled to the surface of the IOL lens and polylysine conjugated Saporin, a ribosomal inhibitory protein. The cytotoxic agent present on the surface serves to destroy residual epithelial cells within the lens capsule thereby preventing secondary capsule opacification of the IOL implant. Examples are given describing binding of **heparin**, heparan sulfate, chondroitin, chondroitin sulfate, dextrin and dextran sulfate to the surface of **PMMA**, hydrogel, acrylate or silicone IOL implants.

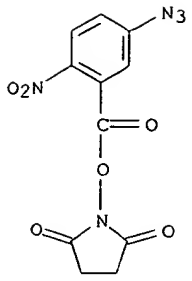
IT **25952-53-8 60117-35-3 96602-46-9**
176049-73-3, 4-(p-Azidosalicylamido)butylamine **184533-12-8**
199804-21-2
RL: CAT (Catalyst use); DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(crosslinking agent; intraocular lens implants for the prevention of secondary cataracts)

RN 25952-53-8 HCAPLUS
CN 1,3-Propanediamine, N'-(ethylcarbonimidoyl)-N,N-dimethyl-, monohydrochloride (9CI) (CA INDEX NAME)

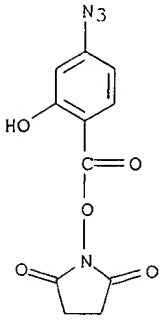


● HCl

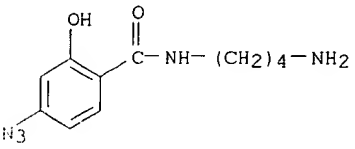
RN 60117-35-3 HCAPLUS
CN 2,5-Pyrrolidinedione, 1-[(5-azido-2-nitrobenzoyl)oxy]- (9CI) (CA INDEX NAME)



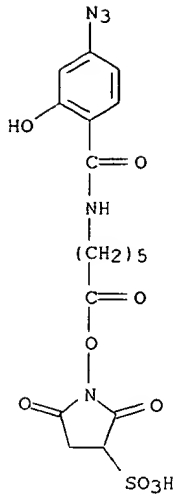
RN 96602-46-9 HCAPLUS
CN 2,5-Pyrrolidinedione, 1-[(4-azido-2-hydroxybenzoyl)oxy]- (9CI) (CA INDEX NAME)



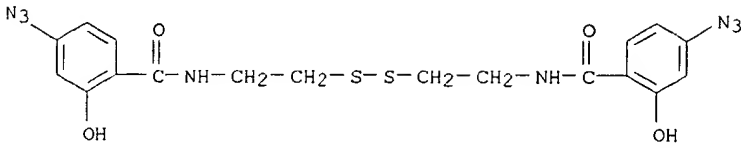
RN 176049-73-3 HCAPLUS
CN Benzamide, N-(4-aminobutyl)-4-azido-2-hydroxy- (9CI) (CA INDEX NAME)



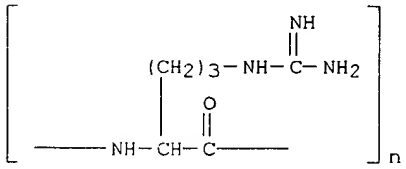
RN 184533-12-8 HCAPLUS
CN 3-Pyrrolidinesulfonic acid, 1-[[6-[(4-azido-2-hydroxybenzoyl)amino]-1-oxohexyl]oxy]-2,5-dioxo- (9CI) (CA INDEX NAME)



RN 199804-21-2 HCAPLUS
CN Benzamide, N,N'-(dithiodi-2,1-ethanediyl)bis[4-azido-2-hydroxy- (9CI) (CA INDEX NAME)



IT **24937-47-1**, Polyarginine **25104-18-1**, Polylysine
25212-18-4, Polyarginine **26853-89-4**, Poly(D-lysine)
26913-90-6, Poly(D-lysine) **37270-94-3**, Blood platelet
factor 4 **38000-06-5**, Polylysine **68181-17-9**,
N-Succinimidyl 3-(2-pyridyldithio)propionate
RL: CAT (Catalyst use); DEV (Device component use); THU (Therapeutic use);
BIOL (Biological study); USES (Uses)
(intraocular lens implants for the prevention of secondary cataracts)
RN 24937-47-1 HCAPLUS
CN Poly[imino[(1S)-1-[3-[(aminoiminomethyl)amino]propyl]-2-oxo-1,2-ethanediyl]] (9CI) (CA INDEX NAME)

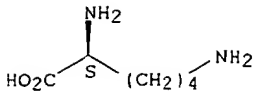


RN 25104-18-1 HCAPLUS
CN L-Lysine, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 56-87-1
CMF C6 H14 N2 O2
CDES 5:L

Absolute stereochemistry.

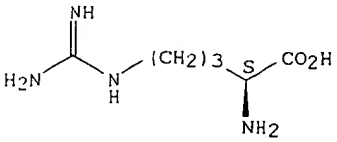


RN 25212-18-4 HCAPLUS
CN L-Arginine, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 74-79-3
CMF C6 H14 N4 O2
CDES 5:L

Absolute stereochemistry.

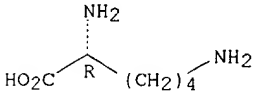


RN 26853-89-4 HCAPLUS
CN D-Lysine, homopolymer (9CI) (CA INDEX NAME)

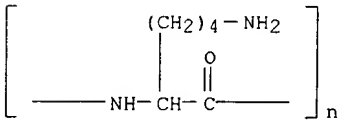
CM 1

CRN 923-27-3
CMF C6 H14 N2 O2
CDES 5:D

Absolute stereochemistry.

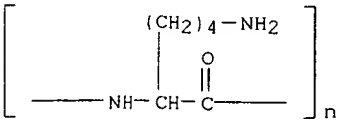


RN 26913-90-6 HCAPLUS
CN Poly[imino[(1R)-1-(4-aminobutyl)-2-oxo-1,2-ethanediyl]] (9CI) (CA INDEX NAME)

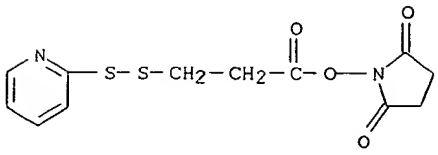


RN 37270-94-3 HCAPLUS
CN Blood platelet factor 4 (9CI) (CA INDEX NAME)

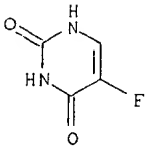
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 38000-06-5 HCAPLUS
CN Poly[imino[(1S)-1-(4-aminobutyl)-2-oxo-1,2-ethanediyl]] (9CI) (CA INDEX NAME)



RN 68181-17-9 HCAPLUS
CN 2,5-Pyrrolidinedione, 1-[1-oxo-3-(2-pyridinyldithio)propoxy]- (9CI) (CA INDEX NAME)

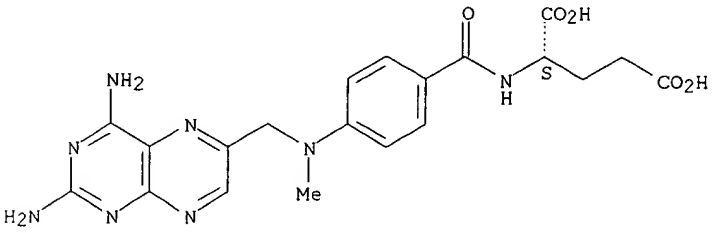


IT **51-21-8**, 5-Fu **59-05-2**, Methotrexate **64-86-8**, Colchicine **630-60-4**, Ouabain **865-21-4**, Vinblastine **9004-53-9**, Dextrin **9005-49-6**, Heparin, biological studies **9007-27-6**, Chondroitin **9007-28-7**, Chondroitin sulfate **9011-14-7**, Pmma **9042-14-2**, Dextran sulfate **9050-30-0**, Heparan sulfate **17090-79-8**, Monensin **20830-81-3**, Daunomycin **23214-92-8**, Doxorubicin **37187-49-8**, Cytochalasin **65271-80-9**, Mitoxanthrone
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(intraocular lens implants for the prevention of secondary cataracts)
RN 51-21-8 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 5-fluoro- (9CI) (CA INDEX NAME)



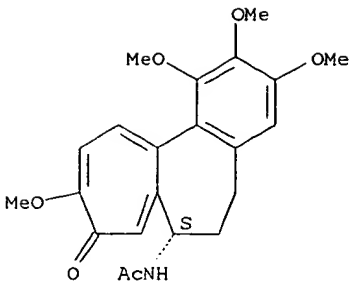
RN 59-05-2 HCAPLUS
CN L-Glutamic acid, N-[4-[[(2,4-diamino-6-pteridinyl)methyl]methylamino]benzoyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



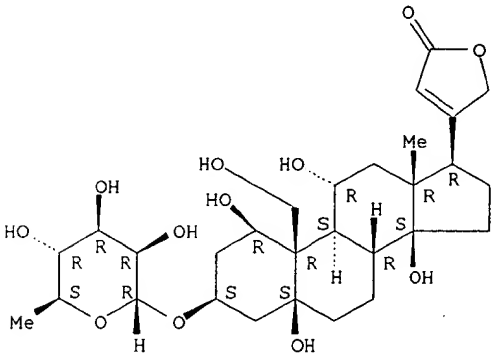
RN 64-86-8 HCAPLUS
CN Acetamide, N-[(7S)-5,6,7,9-tetrahydro-1,2,3,10-tetramethoxy-9-oxobenzo[a]heptalen-7-yl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



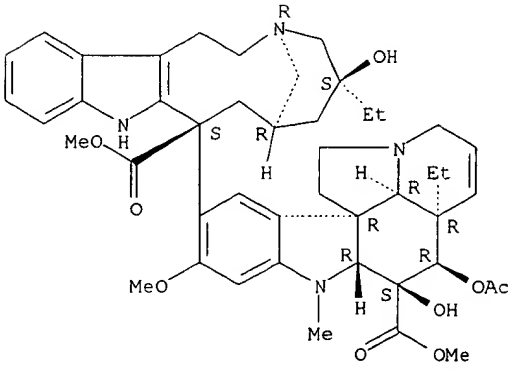
RN 630-60-4 HCAPLUS
CN Card-20(22)-enolide, 3-[(6-deoxy-.alpha.-L-mannopyranosyl)oxy]-1,5,11,14,19-pentahydroxy-, (1.beta.,3.beta.,5.beta.,11.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 865-21-4 HCAPLUS
CN Vincaleukoblastine (6CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 9004-53-9 HCAPLUS
CN Dextrin (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9005-49-6 HCAPLUS
CN Heparin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9007-27-6 HCAPLUS
CN Chondroitin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9007-28-7 HCAPLUS
CN Chondroitin, hydrogen sulfate (9CI) (CA INDEX NAME)

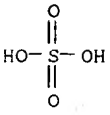
CM 1

CRN 9007-27-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

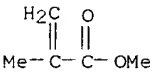
CRN 7664-93-9
CMF H2 O4 S



RN 9011-14-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 80-62-6
CMF C5 H8 O2



RN 9042-14-2 HCAPLUS
CN Dextran, hydrogen sulfate (9CI) (CA INDEX NAME)

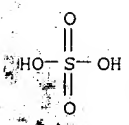
CM 1

CRN 9004-54-0
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 7664-93-9
CMF H2 O4 S



RN 9050-30-0 HCAPLUS
CN Heparan, sulfate (9CI) (CA INDEX NAME)

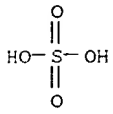
CM 1

CRN 70226-44-7
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

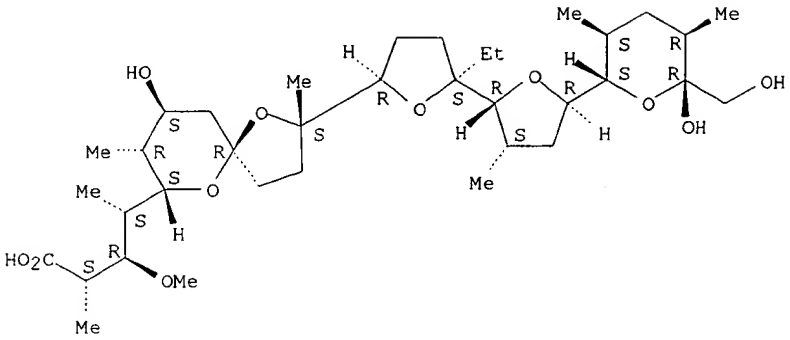
CM 2

CRN 7664-93-9
CMF H2 O4 S



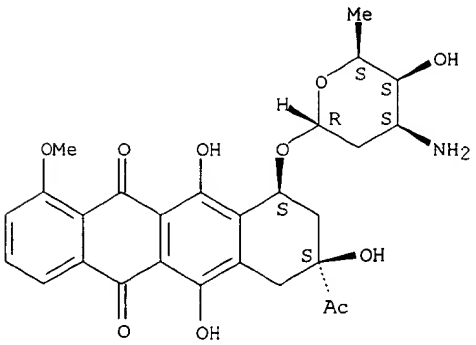
RN 17090-79-8 HCAPLUS
CN Monensin (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 20830-81-3 HCAPLUS
CN 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy-.alpha.-L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

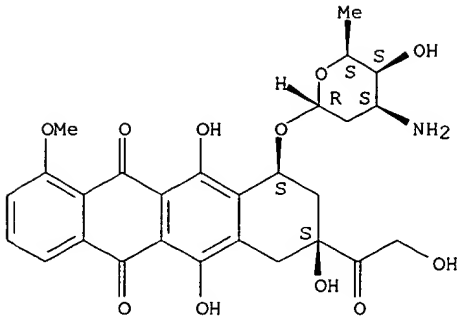
Absolute stereochemistry.



RN 23214-92-8 HCAPLUS
CN 5,12-Naphthacenedione, 10-[(3-amino-2,3,6-trideoxy-.alpha.-L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-8-(hydroxyacetyl)-

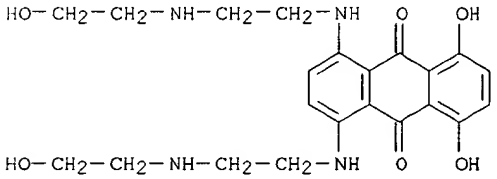
1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 37187-49-8 HCAPLUS
CN Cytochalasin (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 65271-80-9 HCAPLUS
CN 9,10-Anthracenedione, 1,4-dihydroxy-5,8-bis[[2-[(2-hydroxyethyl)amino]ethyl]amino]- (9CI) (CA INDEX NAME)



RE.CNT 4
RE
(1) Behar-Cohen, F; INVESTIGATIVE OPHTHALMOLOGY & VISUAL SCIENCE 1995, V36(12), P2434 MEDLINE
(2) Kamel, I; US 5080924 A 1992
(3) Storz Instr Co; WO 9835688 A 1998 HCAPLUS
(4) Swearingen, A; INVESTIGATIVE OPHTHALMOLOGY & VISUAL SCIENCE 1997, V38(4), PS178

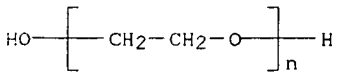
=> d bib abs hitstr 3

L12 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2001 ACS
AN 1997:463681 HCAPLUS
DN 127:113300
TI Functional poly(.epsilon.-caprolactone)/polyether block copolymers as hemocompatible matrix for protein release
AU Song, Cunxian; Labhasetwar, Vinod; Levy, Robert
CS Institute of Biomedical Engineering, Chinese Academy of Medical Sciences, Tianjin, 300192, Peop. Rep. China
SO Proc. Int. Symp. Controlled Release Bioact. Mater. (1997), 24th, 475-476
CODEN: PCRMEY; ISSN: 1022-0178
PB Controlled Release Society, Inc.
DT Journal
LA English
AB An epoxy-based method for synthesis of hydroxy-terminated polyester-polyether block copolymers with a predetd. segment length is presented. Oligomeric poly(.epsilon.-caprolactone)diol mols. were expanded by linking with an epoxy compd., then derivatizing the terminal OH groups of the polyether to epoxy groups which reacted with poly(.epsilon.-caprolactone)diol to form a hydroxy-terminated ABA-type triblock copolymer. Low-mol.-wt. **PEG** and Pluronic F68 formed block copolymers with properly balanced hydrophobicity and good mech. properties. These copolymers were covalently coupled to **heparin** or bovine serum albumin through epoxy **linker** Denacol EX 521 for controlled release.
IT **9005-49-6D**, Heparin, conjugates
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(functional polycaprolactone/polyether block copolymers as hemocompatible matrix for protein release)
RN 9005-49-6 HCAPLUS
CN Heparin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT **120619-61-6**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(functional polycaprolactone/polyether block copolymers as hemocompatible matrix for protein release)
RN 120619-61-6 HCAPLUS
CN 2-Oxepanone, polymer with .alpha.-hydro-.omega.-hydroxypoly(oxy-1,2-ethanediyl), block (9CI) (CA INDEX NAME)

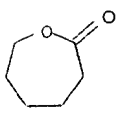
CM 1

CRN 25322-68-3
CMF (C2 H4 O)n H2 O
CCI PMS



CM 2

CRN 502-44-3
CMF C6 H10 O2



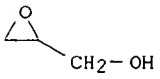
IT **121630-71-5**, Denacol EX 521
RL: RCT (Reactant)
(linking agent; functional polycaprolactone/polyether block copolymers as hemocompatible matrix for protein release)
RN 121630-71-5 HCAPLUS
CN 1,2,3-Propanetriol, homopolymer, oxiranylmethyl ether, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 118549-88-5
CMF (C3 H8 O3)x . x C3 H6 O2
CDES 8:GD,ETHER

CM 2

CRN 556-52-5
CMF C3 H6 O2

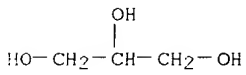


CM 3

CRN 25618-55-7
CMF (C3 H8 O3)x
CCI PMS

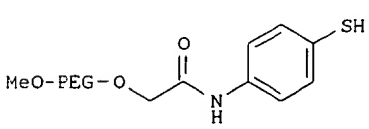
CM 4

CRN 56-81-5
CMF C3 H8 O3

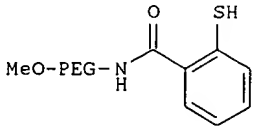


=> D BIB ABS

L14 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2001 ACS
AN 1997:336252 HCAPLUS
DN 127:50354
TI Development of new linkers for the formation of aliphatic C-**H** **bonds** on polymeric supports
AU Jung, Kyung Woon; Zhao, Xu-yang; Janda, Kim D.
CS Dep. of Chem., Scripps Res. Inst. and The Skaggs Inst. for Chem. Biol., La Jolla, CA, 92037, USA
SO Tetrahedron (1997), 53(19), 6645-6652
CODEN: TETRAB; ISSN: 0040-4020
PB Elsevier
DT Journal
LA English
OS CASREACT 127:50354
GI



I



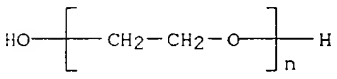
II

AB Two polymeric **linkers,** I and II (**PEG** = polyethylene glycol) were prepd. in high yields. Alkylation of I and II with Br(CH2)4CONHC6H4OMe-4 was facile, and their cleavage from the MeO-**PEG** polymer support was accomplished by desulfurization using Raney nickel to yield the new carbon-**hydrogen bond** product Me(CH2)3CONHC6H4OMe. The protocol reported herein allows efficient prepn. of new polymeric **linkers** as well as their possible application to combinatorial libraries.

=> d bib abs hitstr L26 1

L26 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2001 ACS
AN 1997:504500 HCAPLUS
DN 127:199803
TI High and constant plasma levels of tissue plasminogen activator and PEG-hirudin can be achieved by subcutaneous delivery
AU Humphries, Julia; Lattimer, Christopher; Smith, Alberto; Mcguinness, Catharine L.; Whitton, Colin; Gaffney, Patrick J.; Burnand, Kevin G.
CS Department of Surgery, St Thomas Hospital, London, UK
SO Thromb. Res. (1997), 87(1), 123-129
CODEN: THBRAA; ISSN: 0049-3848
PB Elsevier
DT Journal
LA English
AB Intramural thrombosis is a consistent finding in the arteries of patients who die following coronary angioplasty. This thrombosis is thought to have a role in restenosis, which is a common complication of coronary angioplasty. It has been hypothesised that antithrombotics such as **hirudin** or tissue -type plasminogen activator (tPA), may be therapeutically useful following angioplasty. This report describes the bioavailability of both agents following s.c. (s.c.) injection in **cholesterol**-fed rabbits. I.v. delivered tPA has a half-life of 3-5 min. The half-life of i.v. administered **hirudin** is less than one hour in many species. In order to prolong the duration of action recombinant **hirudin** was **conjugated** to polyethylene glycol (**PEG**). Polyethylene glycol **conjugated** recombinant **hirudin** (**PEG**-rH) (0.7mg/kg) antigen and activity were measurable after just 1 h, reaching a max. (663 and 884 ng/mL resp.) at 12 h. Significant levels were present in rabbit plasma 24 h after injection. S.c. delivered recombinant (r-tPA) (1mg/kg) was present in significant amts. 1hr after injection, reaching a max. (92 IU/mL) at 2 h. Levels of tPA at 9 h were approx. 80x normal circulating levels. High and const. levels of functional activity of both **PEG** -rH and r-tPA in rabbit plasma are achieved by s.c. delivery.
IT **8001-27-2D**, Hirudin, polyethylene glycol **conjugate**
25322-68-3D, Polyethylene glycol, hirudin **conjugate**
139639-23-9, Tissue-type plasminogen activator
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(bioavailability of antithrombotics hirudin and PEG-hirudin for use after angioplasty)
RN 8001-27-2 HCAPLUS
CN Hirudin (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



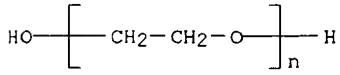
RN 139639-23-9 HCAPLUS
CN Plasminogen activator, tissue-type (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

=> d bib abs hitstr L26 2

L26 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2001 ACS
AN 1995:796977 HCAPLUS
DN 123:246406
TI Characterization of a novel series of aprotinin-derived anticoagulants. I. In vitro and pharmacological properties
AU Stassen, Jean Marie; Lambeir, Anne-Marie; Matthyssens, Gaston; Ripka, William C.; Nystroem, Aake; Sixma, Jan J.; Vermylen, Jos
CS Dep. Orthopedics Hand Surgery, Univ. Umeaa, Swed.
SO Thromb. Haemostasis (1995), 74(2), 646-54
CODEN: THHADQ; ISSN: 0340-6245
DT Journal
LA English
AB Previous investigations have indicated that interference with the initial level of the blood coagulation may lead to effective antithrombotic therapy. Recently a series of potential coagulation inhibitors derived from bovine pancreatic trypsin inhibitor (BPTI, aprotinin) was described. We have detd. their inhibition consts., effects on coagulation assays, effects in an in vitro human thrombosis model and pharmacol. profiles in hamsters. The aprotinin-derived analogs (4C2, 7L22, 5L15, 6L15, 5L84) showed significantly increased inhibitory activity towards factor Xa, factor VIIa-tissue factor (TF) complex, factor XIa and plasma kallikrein or a combination of them, and a significantly decreased plasmin inhibition as compared to aprotinin. In the coagulation assays, 4C2 and 7L22 mainly inhibited factor Xa, 5L15 and 6L15 inhibited factor VIIa-TF complex and 5L84 inhibited factor Xa, factor VIIa-TF complex and the contact activation. In flow chamber expts. with human blood 7L22, 5L15, 6L15, 5L84 and rTAP significantly inhibited fibrin formation and platelet deposition on extracellular matrix from phorbol **ester** stimulated human endothelial cells both under high and low shear stress and in the presence of low mol. wt. **heparin**. The pharmacol. profiles of the aprotinin analogs and rTAP with a mean residence time of 64 to 140 min were not significantly different. Modification of an aprotinin analog with **PEG** (5L15-**PEG**) resulted in a 10-fold decrease of the inhibition const. for the factor VIIa-TF complex and in a significant prolongation of the secondary half-life, while the initial half-life was unchanged. Thus the investigated aprotinin-derived coagulation inhibitors resulted in a series of combined coagulation inhibitors with a pharmacol. behavior, which justifies in vivo testing of their potential antithrombotic action.
IT **9087-70-1**, Aprotinin **25322-68-3D**, PEG, **conjugate** with aprotinin analog **129737-17-3**, Tick anticoagulant peptide
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(in vitro and pharmacol. properties of aprotinin-derived anticoagulants)
RN 9087-70-1 HCAPLUS
CN Trypsin inhibitor, pancreatic basic (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



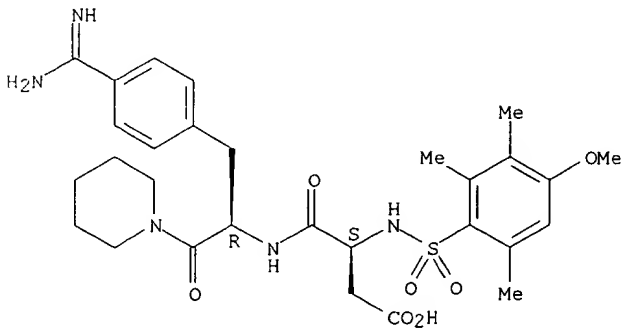
RN 129737-17-3 HCAPLUS
CN Proteinase inhibitor, TAP (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

=> d bib abs hitstr L26 3

L26 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2001 ACS
AN 1995:572949 HCAPLUS
DN 123:199381
TI Preparation and evaluation of PEG-bound thrombin inhibitors based on 4-amidinophenylalanine
AU Stueber, W.; Koschinsky, R.; Reers, M.; Hoffmann, D.; Czech, J.; Dickneite, G.
CS Behringwerke AG, Marburg, Germany
SO Pept. Res. (1995), 8(2), 78-85
CODEN: PERREO; ISSN: 1040-5704
DT Journal
LA English
AB The dipeptide Mtr-Asp-D-Adf-Pip (I; Mtr = 4-methoxy-2,3,6-trimethylphenylsulfonyl, Adf = 4-amidinophenylalanine, Pip = piperidine) represents a potent **thrombin** inhibitor. In comparison to 2-C10H7SO2-Gly-DL-Adf-Pip (NAPAP), I exhibited improved tolerability and a longer half-life in vivo, i.e., 20 .+-. 5 min. Aminopolyethylene glycol monomethyl ether of various mol. wts. was coupled to the **carboxyl** moiety of I and their biol. properties evaluated. First, Mtr-Asp-OCMe3 was coupled to the amino group of the **PEG**, followed by **deesterification** and coupling H-D-Adf-Pip. The **PEG**-bound **thrombin** inhibitors showed inhibition consts. vs. **thrombin** in the subnanomolar range, i.e., they were more active than the parent mol. I. Moreover, the PEGylated inhibitors exhibited a longer lasting effect in vivo. The half-life of Mtr-Asn(PEG10,000-OMe)-D-Adf-Pip was 63 min. in rats and 120 min in pigs. It could be concluded that these **PEG**-bound **thrombin** inhibitors may be employed as versatile drugs for parenteral administration in treating thrombotic disorders.
IT **167969-12-2P 167969-14-4P**
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. and evaluation of polyethylene glycol-bound thrombin inhibitors based on amidinophenylalanine)
RN 167969-12-2 HCAPLUS
CN Butanoic acid, 4-[[1-[[4-(aminoiminomethyl)phenyl]methyl]-2-oxo-2-(1-piperidinyl)ethyl]amino]-3-[[(4-methoxy-2,3,6-trimethylphenyl)sulfonyl]amino]-4-oxo-, monohydrochloride, [S-(R*,S*)]- (9CI) (CA INDEX NAME)

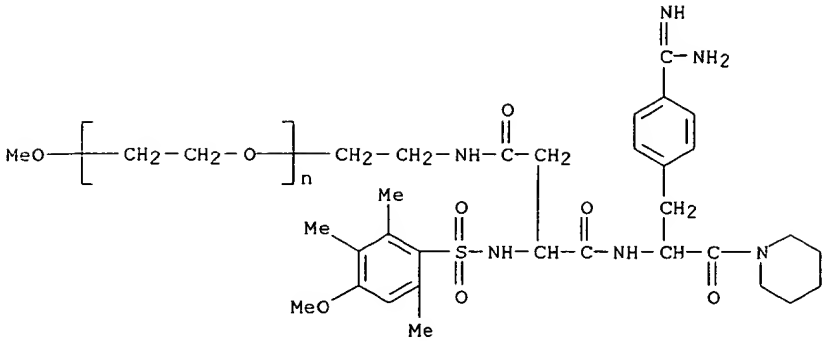
Absolute stereochemistry. Rotation (-).



● HCl

RN 167969-14-4 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-[2-[[4-[[1-[[4-(aminoiminomethyl)phenyl]methyl]-2-oxo-2-(1-piperidinyl)ethyl]amino]-3-[[(4-methoxy-2,3,6-trimethylphenyl)sulfonyl]amino]-1,4-dioxobutyl]amino]ethyl]-.omega.-methoxy-, [S-(R*,S*)]- (9CI) (CA INDEX

NAME)

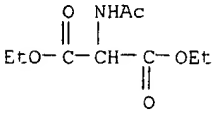


IT **9002-04-4**, Thrombin **9002-07-7**, Trypsin
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(prepn. and evaluation of polyethylene glycol-bound thrombin inhibitors based on amidinophenylalanine)
RN 9002-04-4 HCAPLUS
CN Thrombin (8CI, 9CI) (CA INDEX NAME)

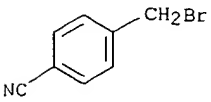
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9002-07-7 HCAPLUS
CN Trypsin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT **110-89-4**, Piperidine, reactions **1068-90-2**, Diethyl acetamidomalonate **17201-43-3**, 4-Cyanobenzyl bromide **80506-64-5**, Aminopoly(ethylene glycol) methyl ether **80745-07-9**, 4-Methoxy-2,3,6-trimethylbenzenesulfonyl chloride **167969-16-6**
RL: RCT (Reactant)
(prepn. and evaluation of polyethylene glycol-bound thrombin inhibitors based on amidinophenylalanine)
RN 110-89-4 HCAPLUS
CN Piperidine (7CI, 8CI, 9CI) (CA INDEX NAME)

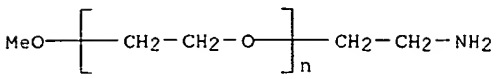
RN 1068-90-2 HCAPLUS
CN Propanedioic acid, (acetylamino)-, diethyl ester (9CI) (CA INDEX NAME)



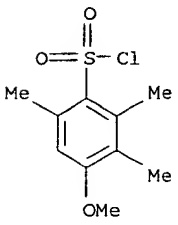
RN 17201-43-3 HCAPLUS
CN Benzonitrile, 4-(bromomethyl)- (9CI) (CA INDEX NAME)



RN 80506-64-5 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-(2-aminoethyl)-.omega.-methoxy- (9CI) (CA INDEX NAME)

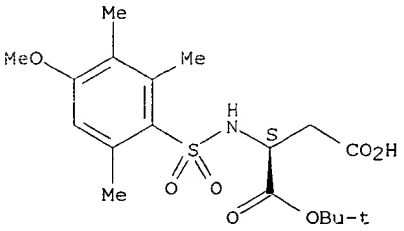


RN 80745-07-9 HCAPLUS
CN Benzenesulfonyl chloride, 4-methoxy-2,3,6-trimethyl- (9CI) (CA INDEX NAME)



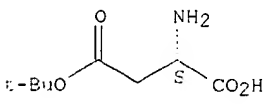
RN 167969-16-6 HCAPLUS
CN L-Aspartic acid, N-[(4-methoxy-2,3,6-trimethylphenyl)sulfonyl]-, 1-(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

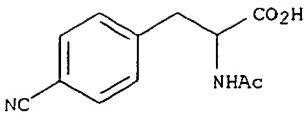


IT **3057-74-7P**, Aspartic acid .beta.-tert-butyl ester
146664-08-6P 146664-09-7P 146727-61-9P
167969-09-7P 167969-10-0P 167969-11-1P
167969-13-3P 167969-15-5P 168039-92-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and evaluation of polyethylene glycol-bound thrombin inhibitors based on amidinophenylalanine)
RN 3057-74-7 HCAPLUS
CN L-Aspartic acid, 4-(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

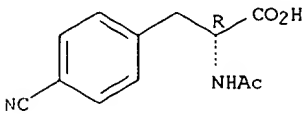


RN 146664-08-6 HCAPLUS
CN Phenylalanine, N-acetyl-4-cyano- (9CI) (CA INDEX NAME)



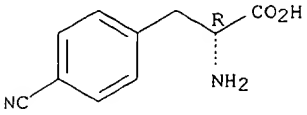
RN 146664-09-7 HCAPLUS
CN D-Phenylalanine, N-acetyl-4-cyano- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 146727-61-9 HCAPLUS
CN D-Phenylalanine, 4-cyano-, monohydrochloride (9CI) (CA INDEX NAME)

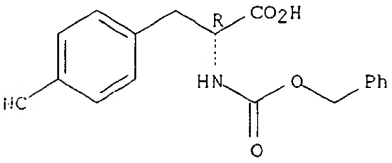
Absolute stereochemistry.



● HCl

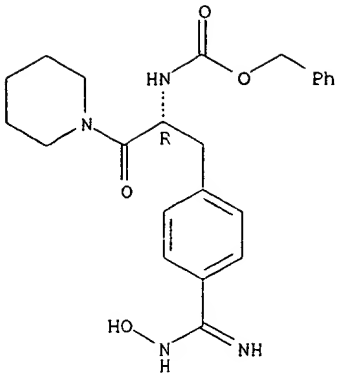
RN 167969-09-7 HCAPLUS
CN D-Phenylalanine, 4-cyano-N-[(phenylmethoxy)carbonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



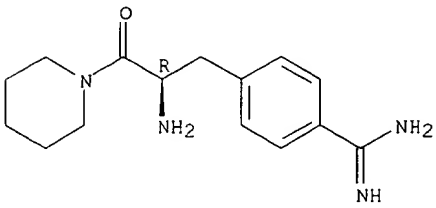
RN 167969-10-0 HCAPLUS
CN Carbamic acid, [1-[[4-[(hydroxyamino)iminomethyl]phenyl]methyl]-2-oxo-2-(1-piperidinyl)ethyl]-, phenylmethyl ester, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 167969-11-1 HCAPLUS
CN Piperidine, 1-[2-amino-3-[4-(aminoiminomethyl)phenyl]-1-oxopropyl]-, dihydrochloride, (R)- (9CI) (CA INDEX NAME)

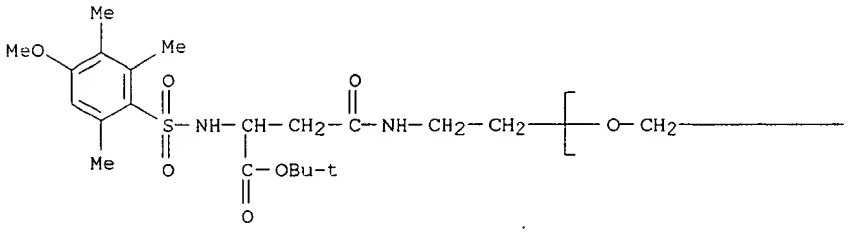
Absolute stereochemistry. Rotation (-).



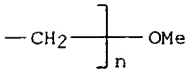
● 2 HCl

RN 167969-13-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-[2-[[4-(1,1-dimethylethoxy)-3-[[(4-methoxy-2,3,6-trimethylphenyl)sulfonyl]amino]-1,4-dioxobutyl]amino]ethyl]-.omega.-hydroxy-, (S)- (9CI) (CA INDEX NAME)

PAGE 1-A

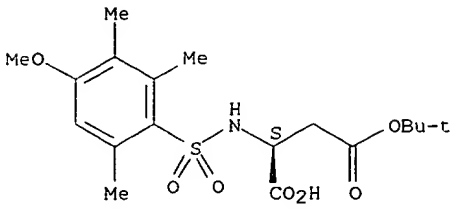


PAGE 1-B



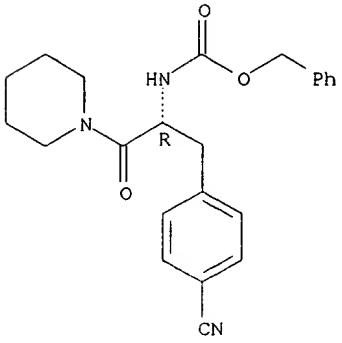
RN 167969-15-5 HCAPLUS
CN L-Aspartic acid, N-[(4-methoxy-2,3,6-trimethylphenyl)sulfonyl]-, 4-(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 168039-92-7 HCAPLUS
CN Carbamic acid, [1-[(4-cyanophenyl)methyl]-2-oxo-2-(1-piperidinyl)ethyl]-, phenylmethyl ester, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



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=> d bib abs hitstr L26 4

L26  ANSWER 4 OF 4  HCAPLUS  COPYRIGHT 2001 ACS
AN   1995:319762  HCAPLUS
DN   122:89553
TI   PEG hydrazone and PEG oxime linkage forming reagents and protein
     derivatives.
IN   Wright, David E.
PA   Ortho Pharmaceutical Corp., USA
SO   Eur. Pat. Appl., 47 pp.
     CODEN: EPXXDW
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.        KIND  DATE           APPLICATION NO.  DATE
     ---------------   ----  --------       ---------------  --------
PI   EP 605963          A2   19940713       EP 1993-309825   19931207
     EP 605963          A3   19951108
          R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE
     CA 2110543         AA   19940610       CA 1993-2110543  19931202
     FI 9305485         A    19940610       FI 1993-5485     19931208
     NO 9304477         A    19940610       NO 1993-4477     19931208
     ZA 9309214         A    19950608       ZA 1993-9214     19931208
     AU 9352383         A1   19940623       AU 1993-52383    19931209
     JP 07196925        A2   19950801       JP 1993-340709   19931209
PRAI US 1992-987739    19921209
     US 1993-45052     19930407
     US 1993-157343    19931123
AB   Compds. for modifying polypeptides with PEG or other water-sol.
     org. polymers are described.  The water-sol. polymer reagents include
     hydrazine, hydrazine carboxylate, semicarbazole,
     thiosemicarbazide, carbonic acid dihydrazide, carbazide, thiocarbazide,
     and arylhydrazide derivs. as well as oxylamine derivs. of water-sol. org.
     polymers, such as polyethylene glycol, polypropylene glycol,
     polyoxyethylated polyol, heparin, heparin fragments,
     dextran polysaccharides, polyamino acids, and polyvinyl alc.  Kits for
     modifying polypeptides with the above water-sol. polymer reagents are also
     provided.  Thus, erythropoietin was modified by oxidn. and treatment with
     monomethoxypolyoxyethylene semicarbazide and the product was sepd. by
     chromatog.  The antigenicity and the effect on hematocrit levels of the
     above derivs. were demonstrated.
IT   9003-99-0DP, Peroxidase, reaction products with polyoxyethylene
     derivs. 9004-74-4DP, reaction products with protein derivs.
     11096-26-7DP, Erythropoietin, reaction products with
     polyoxyethylene derivs. 58914-56-0DP, reaction products with
     protein derivs. 160556-27-4DP, reaction products with protein
     derivs. 160556-30-9DP, reaction products with protein derivs.
     160556-32-1DP, reaction products with protein derivs.
     160556-33-2DP, reaction products with protein derivs.
     160556-34-3DP, reaction products with protein derivs.
     160556-35-4DP, reaction products with protein derivs.
     160556-37-6DP, reaction products with protein derivs.
     RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic
     preparation); BIOL (Biological study); PREP (Preparation)
        (prepn. and biol. activity of polyoxyethylene-coupled protein derivs.)
RN   9003-99-0  HCAPLUS
CN   Peroxidase (9CI)  (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN   9004-74-4  HCAPLUS
CN   Poly(oxy-1,2-ethanediyl), .alpha.-methyl-.omega.-hydroxy- (9CI)  (CA INDEX
     NAME)
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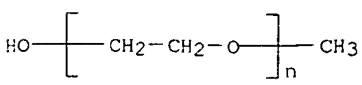
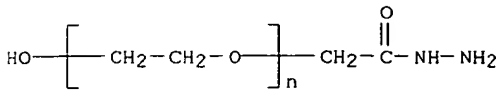
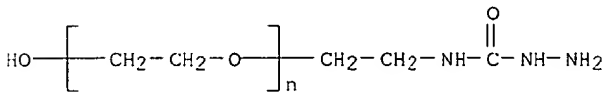


RN 11096-26-7 HCAPLUS
CN Erythropoietin (9CI) (CA INDEX NAME)

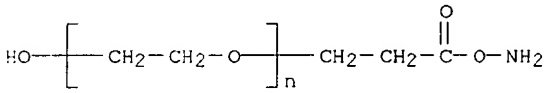
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 58914-56-0 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-(2-hydrazino-2-oxoethyl)-.omega.-hydroxy- (9CI) (CA INDEX NAME)



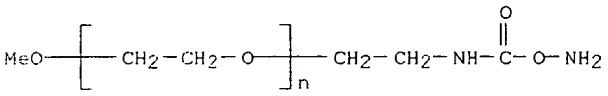
RN 160556-27-4 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-[2-[(hydrazinocarbonyl)amino]ethyl]-.omega.-hydroxy- (9CI) (CA INDEX NAME)



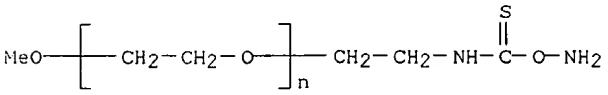
RN 160556-30-9 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-[3-(aminooxy)-3-oxopropyl]-.omega.-hydroxy- (9CI) (CA INDEX NAME)



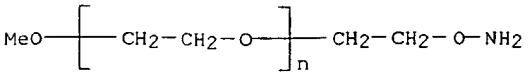
RN 160556-32-1 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-[2-[[(aminooxy)carbonyl]amino]ethyl]-.omega.-methoxy- (9CI) (CA INDEX NAME)



RN 160556-33-2 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-[2-[[(aminooxy)thioxomethyl]amino]ethyl]-.omega.-methoxy- (9CI) (CA INDEX NAME)

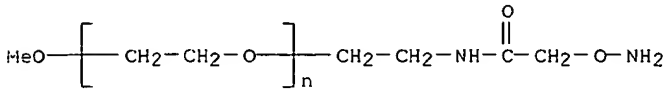


RN 160556-34-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-[2-(aminooxy)ethyl]-.omega.-methoxy- (9CI) (CA INDEX NAME)

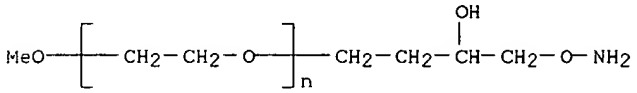


RN 160556-35-4 HCAPLUS

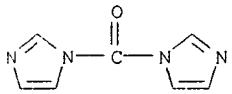
CN Poly(oxy-1,2-ethanediyl), .alpha.-[2-[[(aminooxy)acetyl]amino]ethyl]-.omega.-methoxy- (9CI) (CA INDEX NAME)



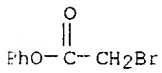
RN 160556-37-6 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-[4-(aminooxy)-3-hydroxybutyl]-.omega.-methoxy- (9CI) (CA INDEX NAME)



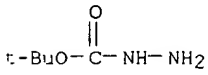
IT **530-62-1 620-72-4**, Phenyl bromoacetate **870-46-2**, tert-Butyl carbazate **11096-26-7**, Erythropoietin **25322-68-3 32130-27-1 36016-38-3**, tert-Butyl-N-hydroxycarbamate **39828-93-8 42989-85-5 96736-00-4 155919-13-4 160556-41-2 160556-42-3**
RL: RCT (Reactant)
(prepn. and biol. activity of polyoxyethylene-coupled protein derivs.)
RN 530-62-1 HCAPLUS
CN 1H-Imidazole, 1,1'-carbonylbis- (9CI) (CA INDEX NAME)



RN 620-72-4 HCAPLUS
CN Acetic acid, bromo-, phenyl ester (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

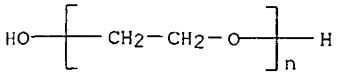


RN 870-46-2 HCAPLUS
CN Hydrazinecarboxylic acid, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

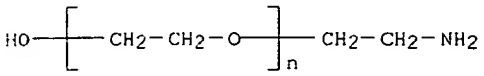


RN 11096-26-7 HCAPLUS
CN Erythropoietin (9CI) (CA INDEX NAME)

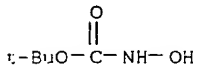
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



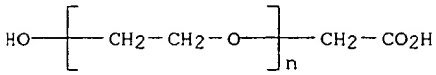
RN 32130-27-1 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-(2-aminoethyl)-.omega.-hydroxy- (9CI) (CA INDEX NAME)



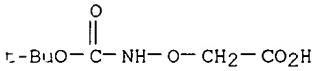
RN 36016-38-3 HCAPLUS
CN Carbamic acid, hydroxy-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



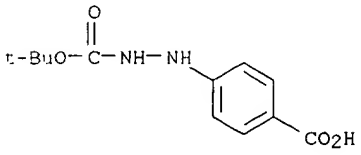
RN 39828-93-8 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-(carboxymethyl)-.omega.-hydroxy- (9CI) (CA INDEX NAME)



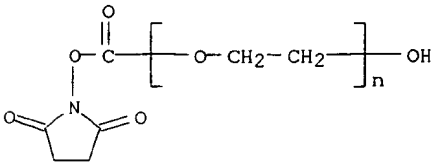
RN 42989-85-5 HCAPLUS
CN Acetic acid, [[[(1,1-dimethylethoxy)carbonyl]amino]oxy]- (9CI) (CA INDEX NAME)



RN 96736-00-4 HCAPLUS
CN Hydrazinecarboxylic acid, 2-(4-carboxyphenyl)-, 1-(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

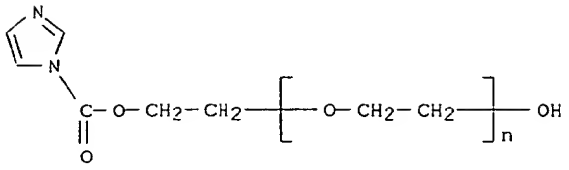


RN 155919-13-4 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-[[(2,5-dioxo-1-pyrrolidinyl)oxy]carbonyl]-.omega.-hydroxy- (9CI) (CA INDEX NAME)

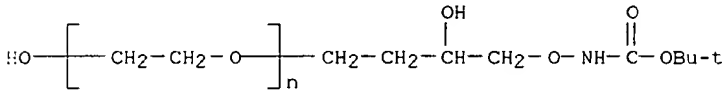


RN 160556-41-2 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-[2-[(1H-imidazol-1-ylcarbonyl)oxy]ethyl]-

.omega.-hydroxy- (9CI) (CA INDEX NAME)

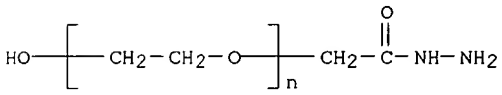


RN 160556-42-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-[4-[[[(1,1-dimethylethoxy)carbonyl]amino]oxy]-3-hydroxybutyl]-.omega.-hydroxy- (9CI) (CA INDEX NAME)

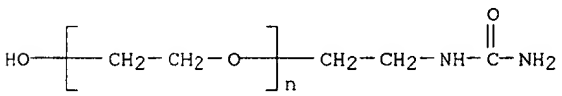


IT **58914-56-0P 61181-31-5P 160556-27-4P**
160556-28-5P 160556-29-6P 160556-30-9P
160556-31-0P 160556-32-1P 160556-33-2P
160556-34-3P 160556-35-4P 160556-36-5P
160556-37-6P 160556-38-7P 160556-39-8DP,
reactions products with polyethylene glycol **160556-40-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and biol. activity of polyoxyethylene-coupled protein derivs.)

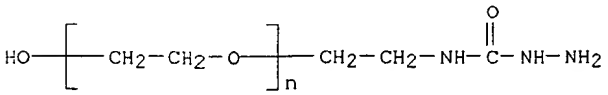
RN 58914-56-0 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-(2-hydrazino-2-oxoethyl)-.omega.-hydroxy- (9CI) (CA INDEX NAME)



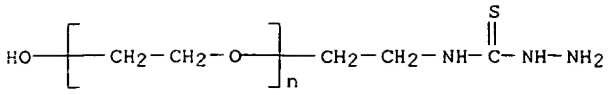
RN 61181-31-5 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-[2-[(aminocarbonyl)amino]ethyl]-.omega.-hydroxy- (9CI) (CA INDEX NAME)



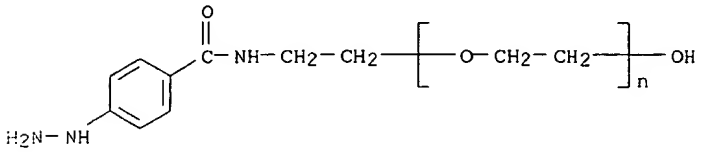
RN 160556-27-4 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-[2-[(hydrazinocarbonyl)amino]ethyl]-.omega.-hydroxy- (9CI) (CA INDEX NAME)



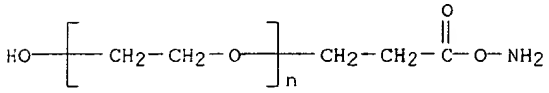
RN 160556-28-5 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-[2-[(hydrazinothioxomethyl)amino]ethyl]-.omega.-hydroxy- (9CI) (CA INDEX NAME)



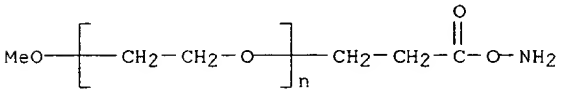
RN 160556-29-6 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-[2-[(4-hydrazinobenzoyl)amino]ethyl]-.omega.-hydroxy- (9CI) (CA INDEX NAME)



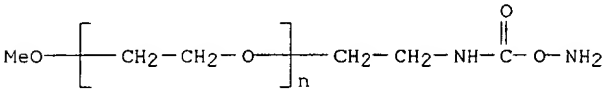
RN 160556-30-9 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-[3-(aminooxy)-3-oxopropyl]-.omega.-hydroxy- (9CI) (CA INDEX NAME)



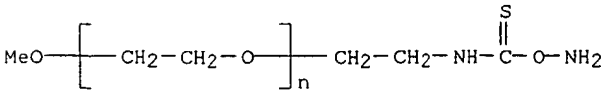
RN 160556-31-0 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-[3-(aminooxy)-3-oxopropyl]-.omega.-methoxy- (9CI) (CA INDEX NAME)



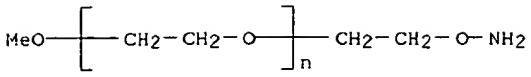
RN 160556-32-1 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-[2-[[(aminooxy)carbonyl]amino]ethyl]-.omega.-methoxy- (9CI) (CA INDEX NAME)



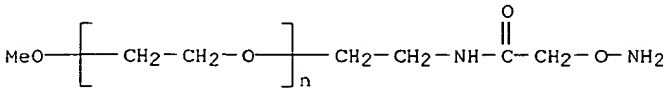
RN 160556-33-2 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-[2-[[(aminooxy)thioxomethyl]amino]ethyl]-.omega.-methoxy- (9CI) (CA INDEX NAME)



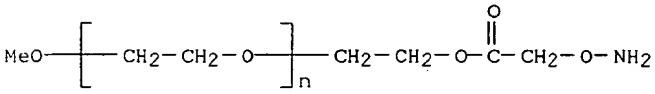
RN 160556-34-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-[2-(aminooxy)ethyl]-.omega.-methoxy- (9CI) (CA INDEX NAME)



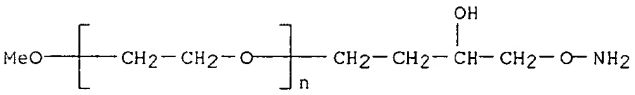
RN 160556-35-4 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-[2-[[(aminooxy)acetyl]amino]ethyl]-.omega.-methoxy- (9CI) (CA INDEX NAME)



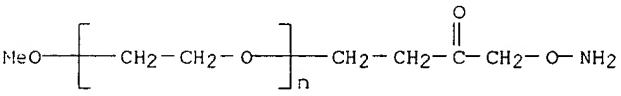
RN 160556-36-5 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-[2-[[(aminooxy)acetyl]oxy]ethyl]-.omega.-methoxy- (9CI) (CA INDEX NAME)



RN 160556-37-6 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-[4-(aminooxy)-3-hydroxybutyl]-.omega.-methoxy- (9CI) (CA INDEX NAME)

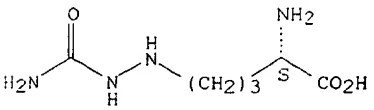


RN 160556-38-7 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-[4-(aminooxy)-3-oxobutyl]-.omega.-methoxy- (9CI) (CA INDEX NAME)

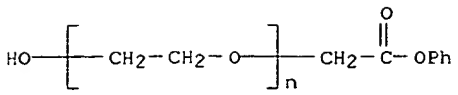


RN 160556-39-8 HCAPLUS
CN L-Norvaline, 5-[2-(aminocarbonyl)hydrazino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 160556-40-1 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-(2-oxo-2-phenoxyethyl)-.omega.-hydroxy- (9CI) (CA INDEX NAME)



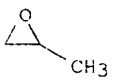
=> D BIB ABS

L30 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2001 ACS
AN 2000:387112 HCAPLUS
DN 133:146444
TI Network of hydrogen bonds as a medium for DNA interaction in solvents
AU Golo, V. L.; Kats, E. I.; Yevdokimov, Yu. M.
CS Dep. Mech. Mathematics, Moscow Univ., Moscow, 119899, Russia
SO Los Alamos Natl. Lab., Prepr., Arch., Condens. Matter (2000) 1-14, arXiv:cond-mat/0006005, 1 Jun 2000
CODEN: LNCMFR
URL: http://xxx.lanl.gov/pdf/cond-mat/0006005
PB Los Alamos National Laboratory
DT Journal; (preprint)
LA English
AB We suggest that the DNA mols. could form the cholesteric phase owing to an interaction mediated by the network of the hydrogen bonds (H-network) in the solvent. The model admits of the dependence of the optical activity of the soln. on the concn. of the **PEG**, and the change in the sense of the cholesteric twist due to the intercalation by the daunomicyn. Using the exptl. data for the cholesteric phase of the DNA dispersion, we obtain a rough est. for the energy given by our model, and show that it should be taken into account as well as the energy due to the steric repulsion, van der Waals, and electrostatic forces, generally used for studying the DNA mols. The elastic const. of the H-network generating the interaction between the DNA mols. is detd. by the energy due to the proton's vibration in the hydrogen bonds.
RE.CNT 13
RE
(5) Kornyshev, A; Phys Rev Lett 2000, V84, P2537 HCAPLUS
(6) Neidle, S; Nature 1980, V288, P129 HCAPLUS
(8) Podgornik, R; Biophys J 1994, V66, P962 HCAPLUS
(9) Rau, D; Biophys J 1992, V61, P260 HCAPLUS
(10) Saenger, W; Nature 1982, V296, P581 HCAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d bib abs hitstr L35 1

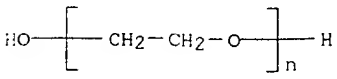
L35 ANSWER 1 OF 16 HCAPLUS COPYRIGHT 2001 ACS
AN 1997:758091 HCAPLUS
DN 128:98997
TI Covalent and noncovalent adducts of proteins with water-soluble poly(alkylene oxides)
AU Topchieva, Irina N.
CS Dep. Chem., Lomonosov State Univ., Moscow, 119899, Russia
SO ACS Symp. Ser. (1997), 680(Poly(ethylene glycol)), 193-206
CODEN: ACSMC8; ISSN: 0097-6156
PB American Chemical Society
DT Journal; General Review
LA English
AB A review with 34 refs. Protein conjugates with PEG and amphiphilic block copolymers of ethylene oxide and propylene oxide (Proxanols) were synthesized. Four types of conjugates ranging in the placement of hydrophobic block and type of polymer chains distribution were obtained. In parallel methods of thermoinduced and high-pressure induced complexation were developed for the synthesis of non-covalent adducts between proteins and Proxanols. Covalent and non-covalent adducts based on .alpha.-chymotrypsin (CHT) retain high enzymic activity. They were characterized by higher thermostability with regard to the native enzyme. Membranotropic properties of conjugates were demonstrated through the study of their translocation across the cell membrane of T-lymphocytes and the investigation of catalytic properties in hydrated reversed micelles. Conformational models of polymer-protein conjugates were suggested. It was assumed that conjugates form in aq. solns. compact structures resembling intramol. micelles.
IT **75-21-8DP**, Ethylene oxide, protein conjugates **75-56-9DP**, Propylene oxide, protein conjugates **9004-07-3DP**, .alpha.-Chymotrypsin, Proxanol conjugates **25322-68-3DP**, **PEG, protein** conjugates
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(covalent and **noncovalent** adducts of **proteins** with water-sol. poly(alkylene oxides))
RN 75-21-8 HCAPLUS
CN Oxirane (9CI) (CA INDEX NAME)

RN 75-56-9 HCAPLUS
CN Oxirane, methyl- (9CI) (CA INDEX NAME)



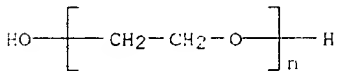
RN 9004-07-3 HCAPLUS
CN Chymotrypsin (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)

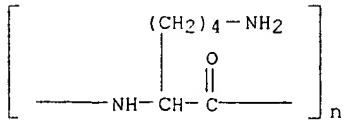


-> d bib abs hitstr L35 2

L35 ANSWER 2 OF 16 HCAPLUS COPYRIGHT 2001 ACS
AN 1997:575512 HCAPLUS
DN 127:217357
TI Water-Soluble Polyion Complex Associates of DNA and Poly(ethylene glycol)-Poly(L-lysine) Block Copolymer
AU Katayose, Satoshi; Kataoka, Kazunori
CS Department of Materials Science and Technology, Science University of Tokyo, Noda, 278, Japan
SO Bioconjugate Chem. (1997), 8(5), 702-707
CODEN: BCCHES; ISSN: 1043-1802
PB American Chemical Society
DT Journal
LA English
AB Complex formation of poly(ethylene glycol)-poly(L-lysine) (**PEG**-PLL) AB type block copolymer with salmon testes DNA or Col E1 plasmid DNA in aq. milieu was studied. The PLL segment of **PEG**-PLL interacts with **nucleic** acid through an **electrostatic** force to form a water-sol. complex assoc. with a diam. of ca. 50 nm. **PEG** segments surrounding the core of the polyion complex prevented the complex from pptn. even under stoichiometric conditions, at which the unit ratio of L-lysine in **PEG**-PLL and phosphate in the DNA is equal. The profile of the thermal melting curve revealed a higher stabilization of DNA structure in **PEG**-PLL/DNA complexes compared to that in the complex made from DNA and PLL homopolymer with the same mol. wt. as the PLL segment in **PEG**-PLL. This stabilizing effect on the DNA structure may be due to the compartmentalization of DNA into the microenvironment of **PEG** with low permittivity. The reversible nature of the **PEG**-PLL/DNA complex was further verified through the addn. of polyanion [poly(L-aspartic acid)]: Poly(L-aspartic acid) replaced DNA in the complex with **PEG**-PLL, resulting in the release of free DNA in the medium. Furthermore, the **PEG**-PLL/DNA complex showed high resistance against DNase I attack, suggesting DNA protection through the segregation into the core of the assoc. having **PEG** palisade.
IT **25322-68-3**, Poly(ethylene glycol) **38000-06-5**, Poly(L-lysine)
RL: RCT (Reactant)
(water-sol. polyion complex assocs. of DNA and poly(ethylene glycol)-poly(L-lysine) block copolymer)
RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



RN 38000-06-5 HCAPLUS
CN Poly[imino[(1S)-1-(4-aminobutyl)-2-oxo-1,2-ethanediyl]] (9CI) (CA INDEX NAME)

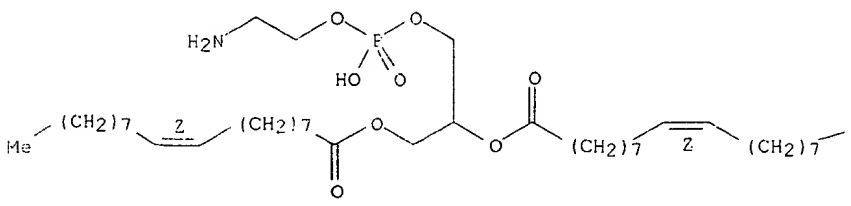


=> d bib abs hitstr L35 3

L35 ANSWER 3 OF 16 HCAPLUS COPYRIGHT 2001 ACS
AN 1996:494986 HCAPLUS
DN 125:204362
TI Modulation of cationic liposomal DNA zeta potential and liposome-protein interaction by amphiphilic poly(ethylene glycol)
AU Phillips, N. C.; Heydari, C.
CS Fac. Pharmacy, Univ. Montreal, Montreal, PQ, H3C 3J7, Can.
SO Pharm. Sci. (1996), 2(2), 73-76
CODEN: PHSCFB; ISSN: 1356-6881
DT Journal
LA English
AB In an attempt to reduce the surface charge of cationic liposomes, and thereby increase their transfection efficiencies, the effect of the amphiphilic solvation enhancer dipalmitoylphosphatidylethanolaminyl-poly(ethylene glycol) (DPPE-**PEG**) on the stability of cationic dioleoylphosphatidylethanolamine (DOPE) dioleoyltrimethylammonium propane (DOTAP) liposomes, their interaction with DNA and the aggregation of liposomal DNA complexes by anionic proteins has been evaluated by photon correlation spectroscopy and measurement of liposome .zeta. potential. DOPE-DOTAP liposomes were unstable, and exhibited significant aggregation after seven days storage at 4.degree.. DOPE-DOTAP liposomes contg. DPPE-**PEG** (5 mol%) were more stable, but also showed some aggregation. DOPE-DOTAP liposomes had a .zeta. potential of +34 mV. This was significantly reduced to a value of +6 mV by the incorporation of DPPE-**PEG**. Both liposome formulations reacted with DNA at wt. ratios of 1:1 to 15:1 within 1-5 min at pH 7.cntdot.4 and 23.degree.. The .zeta. potential of DOPE-DOTAP liposomes was significantly reduced by genomic and plasmid DNA, in a dose-dependent manner, to give a .zeta. potential of +3 mV at a liposome-to-DNA ratio of 1:1. The .zeta. potential of DOPE-DOTAP-DPPE-**PEG** liposomes was further reduced by DNA to -9 mV at a liposome-to-DNA ratio of 1:1. Incubation of DOPE-DOTAP liposomal plasmid DNA (1:5 ratio) with the anionic proteins albumin or IgG, or with a buccopharyngeal wash resulted in a rapid and significant aggregation (0.cntdot.18 .mu.m to 1-2 .mu.m) accompanied by significant redns. in .zeta. potential. In contrast, DOPE-DOTAP-DPPE-**PEG** liposomes showed only a slight increase in size that was not accompanied by a significant change in .zeta. potential. These results indicate that although DPPE-**PEG** masks the pos. charge of DOTAP at the liposome surface and thus reduces **electrostatic** interaction with anionic **proteins**, it still enables efficient interaction of DOTAP with genomic and plasmid DNA.
IT **2462-63-7**, Dioleoylphosphatidylethanolamine **3026-45-7D**, Dipalmitoylphosphatidylethanolamine, reaction prod. with PEG **25322-68-3D**, Poly(ethylene glycol), phosphatidylethanolamine derivs. **113669-21-9**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(modulation of cationic liposomal DNA zeta potential and liposome-protein interaction by amphiphilic poly(ethylene glycol))
RN 2462-63-7 HCAPLUS
CN 9-Octadecenoic acid (9Z)-, 1-[[[(2-aminoethoxy)hydroxyphosphinyl]oxy]methyl]-1,2-ethanediyl ester (9CI) (CA INDEX NAME)

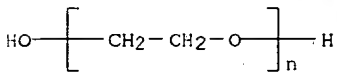
Double bond geometry as shown.

PAGE 1-A



PAGE 1-B

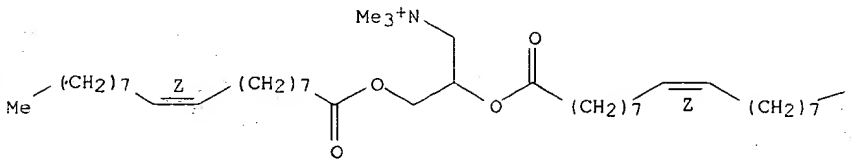
RN 3026-45-7 HCAPLUS
RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



RN 113669-21-9 HCAPLUS
CN 1-Propanaminium, N,N,N-trimethyl-2,3-bis[[(9Z)-1-oxo-9-octadecenyl]oxy]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A



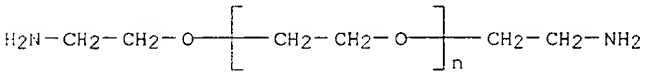
PAGE 1-B

=> d bib abs hitstr L35 4

L35 ANSWER 4 OF 16 HCAPLUS COPYRIGHT 2001 ACS
AN 1996:489028 HCAPLUS
DN 125:177182
TI PEG-poly(lysine) block copolymer as a novel type of synthetic gene vector with supramolecular structure
AU Katayose, Satoshi; Kataoka, Kazunori
CS Dep. Materials Science Technology, Science Univ. Tokyo, Chiba, 278, Japan
SO Adv. Biomater. Biomed. Eng. Drug Delivery Syst., [Iketani Conf. Biomed. Polym.], 5th (1996), Meeting Date 1995, 319-320. Editor(s): Ogata, Naoya. Publisher: Springer, Tokyo, Japan.
CODEN: 68CXA6
DT Conference
LA English
AB As a novel system of DNA vector, sol. complexes of DNA with polyethylene glycol/poly(lysine) AB type block copolymer was synthesized. The thermal denaturation behavior of the complexes were studied. As a result, sol. nano-assoc. were obtained even at the **electrostatically** naturalized point, and stabilization of **DNA** structure were confirmed by measuring melting curves of complexes. Furthermore, **PEG**-poly(lysine)/DNA complex was reversiblely dissocd. by addn. of poly-L-aspartic acid. Poly-L-aspartic acid replaced DNA in the complex with **PEG**-Poly(lysine) and resulted in the formation of ree DNA. This feature suggests that complexed DNA can be released from nano-assoc. in appropriate condition to achieve effective transfection.
IT **180798-48-5**
RL: BPR (Biological process); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(PEG-poly(lysine) block copolymer as a novel type of synthetic gene vector with supramol. structure)
RN 180798-48-5 HCAPLUS
CN L-Lysine, N6-[(phenylmethoxy)carbonyl]-, polymer with .alpha.-(2-aminoethyl)-.omega.-(2-aminoethoxy)poly(oxy-1,2-ethanediyl), block (9CI) (CA INDEX NAME)

CM 1

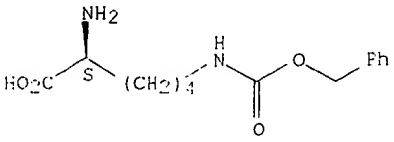
CRN 24991-53-5
CMF (C2 H4 O)n C4 H12 N2 O
CCI PMS



CM 2

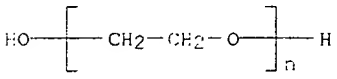
CRN 1155-64-2
CMF C14 H20 N2 O4
CDES 5:L

Absolute stereochemistry.



=> d bib abs hitstr L35 5

L35 ANSWER 5 OF 16 HCAPLUS COPYRIGHT 2001 ACS
AN 1996:439777 HCAPLUS
DN 125:108224
TI A model for the prediction of precipitation curves for globular proteins with nonionic polymers as the precipitating agent
AU Guo, Meining; Narsimhan, Ganesan
CS Biochem. Food Process Eng., Dep. Agric. Biol. Eng. Purdue Univ., West Lafayette, IN, 47907, USA
SO Sep. Sci. Technol. (1996), 31(13), 1777-1804
CODEN: SSTEDS; ISSN: 0149-6395
DT Journal
LA English
AB A statistical thermodn. model for the prediction of pptn. curves of globular proteins using nonionic polymers has been proposed. The model accounts for **protein**-polymer, polymer-solvent, **electrostatic**, and hydrophobic interactions as well as the entropy of mixing and employs simplifying assumptions such as spherical globular protein mol. with uniform surface properties and linear, homogeneous polymer uniform with respect to mol. wt. The proposed model can only be employed to predict pptn. curves of charged proteins at sufficiently high ionic strengths since it does not account for **electrostatic** **protein-protein** interactions due to overlap of elec. double layers. The model predictions of pptn. curves of human serum albumin (HSA) at the isoelec. point using polyethylene glycol (**PEG**) for different initial protein concns. and mol. wts. of **PEG** agreed well with the exptl. data. Higher polymer concns. were required to ppt. proteins for lower mol. wt. polymers, lower initial protein concns., and more favorable protein-polymer interactions. The HSA-**PEG** interaction parameter, obtained by fitting the model to exptl. data for one mol. wt. **PEG**, was 0.122. Soly. of HSA in **PEG** soln. was found to decrease with increasing salt concns., this effect being more pronounced at lower **PEG** concns. The net charge on HSA was found to result in a max. in its soly. at intermediate salt concns. as a result of competing salting-in and salting-out effects.
IT **25322-68-3**, Polyethylene glycol
RL: NUU (Nonbiological use, unclassified); USES (Uses)
(a model for prediction of pptn. curves for globular proteins with nonionic polymers as pptg. agent)
RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)

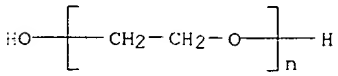


=> d bib abs hitstr L35 6

L35 ANSWER 6 OF 16 HCAPLUS COPYRIGHT 2001 ACS
AN 1996:366267 HCAPLUS
DN 125:80869
TI A biosensor stabilized by polyethylene glycol for the monitoring of hydrogen peroxide in organic solvent media
AU Joo, Hyun; Yoo, Young Je; Ryu, Dewey D. Y.
CS Dep. Chem. Eng., Seoul Natl. Univ., Seoul, S. Korea
SO Enzyme Microb. Technol. (1996), 19(1), 50-56
CODEN: EMTED2; ISSN: 0141-0229
DT Journal
LA English
AB Since many chem./biochem. reactions contg. hydrogen peroxide are performed in org. solvent media, the development of a biosensor stabilized in org. solvent media is very crucial. A stable hydrogen peroxide sensor with a wide measurement range and a long life in inorg. solvent as well as aq. soln. was developed. To maintain the stability of the sensor in the org. solvent system, catalase was mixed with polyethylene glycol (**PEG**). The treatment could apparently enhance the stability of the enzyme activity. The induction of **hydrogen bonding** between the **enzyme** and **PEG** was assumed to be the possible reason for the stabilization, and was also confirmed by IR spectrophotometry and CD. The stability of the enzyme depended upon the content and mol. wt. of **PEG**. **PEGs** (MW 3350-6000) with a mixing ratio of 0.2 g **PEG** to 2.8 .times. 104 catalase activity units showed the highest stability level. The biosensor developed in the present study, therefore, worked well even in 50% (vol./vol.) dioxane soln. for 2 days; 90% of the initial activity was maintained. The detection limit of the sensor was .apprx.140 mM and the response time was 40 s in aq. buffer and 60-90 s in the org. solvent.
IT **7722-84-1**, Hydrogen peroxide, analysis
RL: ANT (Analyte); ANST (Analytical study)
(catalase-contg. biosensor stabilized by polyethylene glycol for monitoring hydrogen peroxide in org. solvent media)
RN 7722-84-1 HCAPLUS
CN Hydrogen peroxide (H2O2) (9CI) (CA INDEX NAME)

IT **123-91-1**, Dioxane, analysis **25322-68-3**, Polyethylene glycol
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(catalase-contg. biosensor stabilized by polyethylene glycol for monitoring hydrogen peroxide in org. solvent media)
RN 123-91-1 HCAPLUS
CN 1,4-Dioxane (9CI) (CA INDEX NAME)

RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



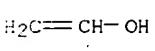
IT **9001-05-2**, Catalase
CAT (Catalyst use); USES (Uses)
(catalase-contg. biosensor stabilized by polyethylene glycol for

monitoring hydrogen peroxide in org. solvent media)
RN 9001-05-2 HCAPLUS
CN Catalase (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT **9002-89-5**, Polyvinyl alcohol
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(catalase-contg. polyvinyl alc. membrane biosensor stabilized by polyethylene glycol for monitoring hydrogen peroxide in org. solvent media)
RN 9002-89-5 HCAPLUS
CN Ethenol, homopolymer (9CI) (CA INDEX NAME)

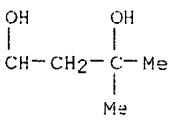
CM 1

CRN 557-75-5
CMF C2 H4 O

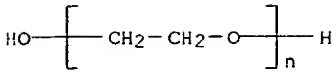


=> d bib abs hitstr L35 7

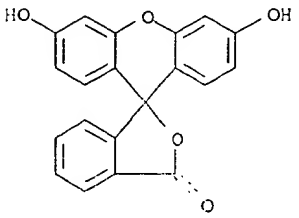
L35 ANSWER 7 OF 16 HCAPLUS COPYRIGHT 2001 ACS
AN 1995:242065 HCAPLUS
DN 122:7552
TI High resolution structures of the 4-4-20 Fab-fluorescein complex in two solvent systems: effects of solvent on structure and antigen-binding affinity
AU Herron, James N.; Terry, Alan H.; Johnston, Steven; He, Xia-min; Guddat, Luke W.; Voss, Edward W., Jr.; Edmundson, Allen B.
CS Department Pharmaceutics Pharmaceutical Chemistry, University Utah, Salt Lake City, UT, 84112, USA
SO Biophys. J. (1994), 67(6), 2167-83
CODEN: BIOJAU; ISSN: 0006-3495
DT Journal
LA English
AB Three-dimensional structures were detd. by three crystal forms of the antigen binding fragment (Fab) of anti-fluorescein antibody 4-4-20 in complex with fluorescein. These included (1) a triclinic (P1) form crystd. in 47% (vol./vol.) 2-methyl-2,4-pentanediol (MPD): (2) a triclinic (P1) form crystd. in 16% (w/v) poly(ethylene glycol), mol. wt. 3350 (**PEG**) and (3) a monoclinic (P2) form crystd. in 16% **PEG**. Solvent mols. were added to the three models and the structures were refined to their diffraction limits (1.75-.ANG., 1.78-.ANG., and 2.49-.ANG. resoln. for the MPD, triclinic **PEG**, and monoclinic **PEG** forms, resp.). Comparisons of these structures were interesting because 4-4-20 exhibited a lower antigen-binding affinity in 47% MPD (Ka = 1.3 .times. 108 M-1) than in either 16% **PEG** (Ka = 2.9 .times. 109 M-) or phosphate-buffered saline (Ka - 1.8 .times. 1010 M-1). Even though the soln. behavior of the antibody was significantly different in MPD and **PEG**, the crystal structures were remarkably similar. In all three structures, the fluorescein-combining site was an arom. slot formed by tyrosines L32, H96, and H97 and tryptophans L96 and H33. In addn., several active site constituents formed an **electrostatic** network with the **ligand**. These included a salt link between arginine L34 and one of fluorescein's enolate oxygen atoms, a hydrogen bond between histidine L27d and the second enolic group, a hydrogen bond between tyrosine L32 and the phenylcarboxylate group, and two medium range (.apprx.5 .ANG.) electrostatic interactions with lysine L50 and arginine H52. The only major difference between the triclinic MPD and **PEG** structures was the degree of hydration of the antigen-combining site. Three water mols. participated in the above electrostatic network in the MPD structure, while eight were involved in the **PEG** structure. Based on this observation, we believe that 4-4-20 exhibits a lower affinity in MPD due to the depletion of the hydration shell of the antigen-combining site.
IT **107-41-5**, 2-Methyl-2,4-pentanediol **25322-68-3**, Polyethylene glycol
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(effect of solvents on antigen binding and crystal structure of fluorescein-specific Ig Fab complexes)
RN 107-41-5 HCAPLUS
CN 2,4-Pentanediol, 2-methyl- (8CI, 9CI) (CA INDEX NAME)



RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)

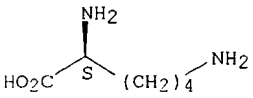


IT **2321-07-5**, Fluorescein
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(effect of solvents on crystal structure and fluorescein-binding activity of Ig Fab-fluorescein complexes)
RN 2321-07-5 HCAPLUS
CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 3',6'-dihydroxy- (9CI) (CA INDEX NAME)



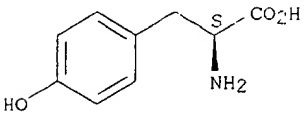
IT **56-87-1**, Lysine, biological studies **60-18-4**, Tyrosine, biological studies **71-00-1**, Histidine, biological studies **73-22-3**, Tryptophan, biological studies **74-79-3**, Arginine, biological studies
RL: BOC (Biological occurrence); BPR (Biological process); BIOL (Biological study); OCCU (Occurrence); PROC (Process)
(in antigen binding by fluorescein-specific Ig Fab complexes)
RN 56-87-1 HCAPLUS
CN L-Lysine (9CI) (CA INDEX NAME)

Absolute stereochemistry.



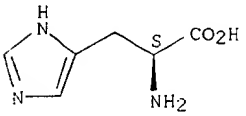
RN 60-18-4 HCAPLUS
CN L-Tyrosine (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



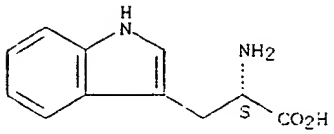
RN 71-00-1 HCAPLUS
CN L-Histidine (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



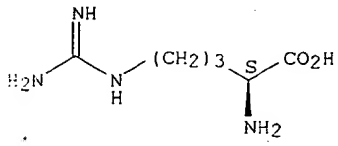
RN 73-22-3 HCAPLUS
CN L-Tryptophan (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 74-79-3 HCAPLUS
CN L-Arginine (9CI) (CA INDEX NAME)

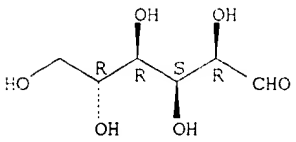
Absolute stereochemistry.



=> d bib abs hitstr L35 8

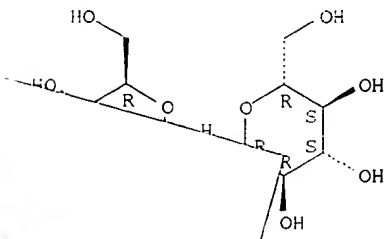
L35 ANSWER 8 OF 16 HCAPLUS COPYRIGHT 2001 ACS
AN 1993:466359 HCAPLUS
DN 119:66359
TI Separation of freezing- and drying-induced denaturation of lyophilized proteins using stress-specific stabilization. I. Enzyme activity and calorimetric studies
AU Carpenter, John F.; Prestrelski, Steven J.; Arakawa, Tsutomu
CS CryoLife, Inc., Marietta, GA, 30067, USA
SO Arch. Biochem. Biophys. (1993), 303(2), 456-64
CODEN: ABBIA4; ISSN: 0003-9861
DT Journal
LA English
AB Stabilization of labile proteins during lyophilization requires protection of the protein against both freezing and dehydration stresses. Solns. of 1-10% (wt./vol.) polyethylene glycol (**PEG**) fully protected both lactate dehydrogenase and phosphofructokinase during freezing and thawing, but did not stabilize the proteins during freeze-drying. Thus, with this lyophilization system a second compd. could be tested for its capacity to stabilize dried proteins, independent of its ability to provide cryopreservation. In the presence of low concns. of glucose or trehalose (which alone provided minimal protection) and 1% **PEG** (wt./vol.), almost full enzyme activity was recovered after freeze-drying and rehydration. Differential scanning calorimetry indicated that the **PEG** was cryst. and the sugars were amorphous in the dried samples. Expts. with lactose and mannitol demonstrated that if these compds. also crystd. during freeze-drying, protein stabilization was reduced or abolished. **PEG** stabilizes the proteins during freezing, due to preferential exclusion of **PEG** from the protein's surface. The sugars protect the **proteins** during dehydration by **hydrogen bonding** to the dried **protein**, thus serving as water substitutes. The report provides the first example of stabilization of proteins during lyophilization through sep., specific treatments of the fundamentally different stresses of freezing and dehydration.
IT **50-99-7**, Glucose, biological studies **99-20-7**, Trehalose
RL: BIOL (Biological study)
(enzymes stabilization by, during dehydration, lyophilization in relation to)
RN 50-99-7 HCAPLUS
CN D-Glucose (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

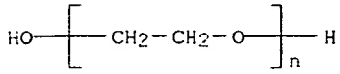


RN 99-20-7 HCAPLUS
CN .alpha.-D-Glucopyranoside, .alpha.-D-glucopyranosyl (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



IT **25322-68-3**, PEG
RL: BIOL (Biological study)
(enzymes stabilization by, during freezing and thawing, lyophilization in relation to)
RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



IT **1333-74-0**
RL: BIOL (Biological study)
(hydrogen bond, enzymes stabilization by sugars during dehydration dependence on)
RN 1333-74-0 HCAPLUS
CN Hydrogen (8CI, 9CI) (CA INDEX NAME)

IT **9001-60-9**, Lactate dehydrogenase **9001-80-3**,
Phosphofructokinase
RL: PROC (Process)
(stabilization of, during freezing and dehydration and lyophilization, PEG and sugars in)
RN 9001-60-9 HCAPLUS
CN Dehydrogenase, lactate (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9001-80-3 HCAPLUS
CN Kinase (phosphorylating), phosphofructo- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

=> d bib abs hitstr L35 9

L35 ANSWER 9 OF 16 HCAPLUS COPYRIGHT 2001 ACS
AN 1993:187349 HCAPLUS
DN 118:187349
TI Partition assay with colored particles
IN Folkersen, Joergen; Lemonius, Soeren
PA Den.
SO PCT Int. Appl., 15 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9305395	A1	19930318	WO 1992-DK277	19920914
	W: AT, AU, BE, BG, BR, CA, CH, CS, DE, DK, ES, FI, GB, HU, JP, KP, KR, LK, LU, MG, MN, MW, NL, NO, PL, RO, RU, SD, SE, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, SN, TD, TG				
	AU 9225949	A1	19930405	AU 1992-25949	19920914
PRAI	DK 1991-1592		19910912		
	WO 1992-DK277		19920914		

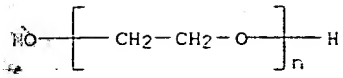
AB A method is disclosed for visually detecting a substance in a biol. fluid which involves a biospecific affinity reaction, wherein a sample of a biol. fluid is mixed with an aq. medium comprising .gtoreq.2 phases and contg. .gtoreq.1 type of dispersed color indicator particles comprising a ligand having affinity to the substance to be detected, which particles change affinity for .gtoreq.1 of the phases of the aq. medium when a binding resulting from an affinity reaction between the ligand and the substance to be detected has taken place and the thus formed mixt. is allowed to react, whereafter the change of distribution of the indicator particles in the aq. medium is obsd. The method is applicable to e.g. an immunoassay. The two-phase aq. system contains e.g. a soln. of dextran, **PEG**, and NaCl. The particles are e.g. intensely colored carboxylated polystyrene/vinyl particles with a covalently or **noncovalently** bound **ligand**. Application of the method to detection of microalbuminuria is described (no data).

IT **100-42-5D**, Styrene, polymers with vinyl compds., carboxylated
RL: ANST (Analytical study)
(colored ligand-bound particles of, for analyte detection in biol. fluid with multiple phase assay)
RN 100-42-5 HCAPLUS
CN Benzene, ethenyl- (9CI) (CA INDEX NAME)

IT **7647-14-5**, Sodium chloride, uses **9004-54-0**, Dextran, uses **25322-68-3**, Polyethylene glycol
RL: USES (Uses)
(in multiple-phase system with colored indicator ligand-bound particles for analyte detection in biol. fluid)
RN 7647-14-5 HCAPLUS
CN Sodium chloride (NaCl) (9CI) (CA INDEX NAME)

RN 9004-54-0 HCAPLUS
CN Dextran (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



=> d bib abs hitstr L35 10

L35 ANSWER 10 OF 16 HCAPLUS COPYRIGHT 2001 ACS
AN 1993:164102 HCAPLUS
DN 118:164102
TI Catalytically competent human and bovine .zeta.-thrombin and chimeras generated from unfolded polypeptide chains
AU Lewis, Sidney D.; Brezniak, Diane V.; Fenton, John W., II; Shafer, Jules A.
CS Biol. Chem. Dep., Merck Sharp and Dohme Res. Lab., West Point, PA, 19486, USA
SO Protein Sci. (1992), 1(8), 998-1006
CODEN: PRCIEI
DT Journal
LA English
AB Human and bovine .alpha.-thrombin cleaved at the B-chain by chymotrypsin generates catalytically competent .zeta.-**thrombins**, which are comprised of 2 **noncovalently** linked fragments: a 36- (human) or 49- (bovine) residue A-chain linked by a disulfide bridge to B-chain residues B1-148 (.zeta.1-thrombin) and B-chain residues B149-259 (.zeta.2-thrombin). Human and bovine D-Phe-Pro-Arg-CH2-.zeta.- and PhMeSO2-.zeta.-thrombins were prepd. by reaction of the active-site histidine (H-B43) and serine (S-B205) with D-Phe-Pro-Arg-chloromethyl ketone and phenylmethylsulfonyl fluoride, resp. Unfolding and dissocn. of the noncovalently linked polypeptide chains of either human or bovine D-Phe-Pro-Arg-CH2-.zeta.- and PhMeSO2-.zeta.-thrombins in 4.5M guanidine-HCl and refolding upon 30-fold diln. in 50 mM Na phosphate buffer pH 6.5, 750 mM NaCl, 0.1% **PEG** resulted in biphasic generation of catalytic activity. The slow phase was eliminated in the presence of the competitive inhibitor, benzamidine-HCl. Unfolding and refolding mixts. of the appropriate inactive precursors generated the active chimeric thrombins, bovine .zeta.1-thrombin:human .zeta.2-thrombin and human .zeta.1-thrombin:bovine .zeta.2-thrombin. Human .zeta.1- and .zeta.2-thrombins were isolated, and, upon recombining, the isolated fragments refolded to generate catalytically competent .zeta.-thrombin with an active-site content, specific activity toward Chromozym-TH, and a specificity const. (kcat/Km) for fibrinopeptide A release from fibrinogen that were all within 60% of those of native .alpha.-thrombin. Both .alpha.- and .zeta.-thrombins refolded via 1st-order processes (k = 0.011-0.014 s-1), which in the case of .zeta.-thrombin were independent of whether .zeta.1-thrombin and/or .zeta.2-thrombin was incubated in refolding buffer prior to mixing. This observation, together with others, was consistent with the view that generation of catalytically competent enzyme proceeds via a kinetic pathway wherein .zeta.1- and .zeta.2-thrombins independently partially refold and form a noncovalent complex that undergoes a rate-detg. rearrangement to active thrombin.
IT **9002-04-4**, Thrombin
RL: BIOL (Biological study)
(.zeta.-, formation of catalytically competent human and bovine chimeras of, from unfolded peptide chains)
RN 9002-04-4 HCAPLUS
CN Thrombin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

=> d bib abs hitstr L35 11

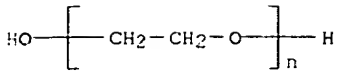
L35 ANSWER 11 OF 16 HCAPLUS COPYRIGHT 2001 ACS
AN 1992:101355 HCAPLUS
DN 116:101355
TI Electrostatic effects on protein partitioning: simultaneous effect of pH and polyme: molecular weight
AU Forciniti, D.; Hall, C. K.; Kula, M. R.
CS Dep. Chem. Eng., North Carolina State Univ., Raleigh, NC, 27695-7905, USA
SO Chem. Eng. Sci. (1992), 47(1), 165-75
CODEN: CESCAC; ISSN: 0009-2509
DT Journal
LA English
AB The partition coeffs. of lysozyme, chymotrypsinogen A, albumin and catalase in 64 polyethyleneglycol/dextran systems are reported. The measurements were performed at four pHs for each protein. The simultaneous effect of pH changes and polymer mol. wt. and concn. on the partition coeff. of each protein is analyzed. The partition coeff. (IP) of lysozyme (IP = 10.5) has a min. value at its isoelec. point and it takes its max. value at acidic pHs. A change in the aggregational state of lysozyme is obsd. when the pH is shifted from the acidic to the alk. ranges. The partition coeff. of chymotrypsinogen A (IP = 9.5) has a min. at pH 5.6 and increases towards more alk. or acidic pHs. The partition coeff. of albumin (IP = 4.6) takes its min. value at pH 5.6. The partition coeff. of catalase (IP = 5.6) takes its max. value at pH 5.6. The effect of the pH on the partition coeff. of lysozyme and chymotrypsinogen A at high polymer concns. is larger than at low total polymer concns. but the effect of the pH on the partition coeff. of albumin and catalase at high polymer concns. is smaller than at low polymer concns. It was found that the partition coeff. of the four proteins studied becomes less sensitive to changes in the pH at high PEG mol. wts. Close to the isoelec. point the partition coeff. is less sensitive to changes in the mol. wt. of the polymers than at conditions far from the isoelec. point.
IT **9001-05-2**, Catalase **9001-63-2**, Lysozyme
9035-75-0, Chymotrypsinogen A
RL: BIOL (Biological study)
(partitioning of, in aq. polyethyleneglycol/dextran systems, polymer mol. wt. and pH effect on)
RN 9001-05-2 HCAPLUS
CN Catalase (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9001-63-2 HCAPLUS
CN Lysozyme (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9035-75-0 HCAPLUS
CN Chymotrypsinogen (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT **9004-54-0**, Dextran, biological studies
RL: BIOL (Biological study)
(protein partitioning in aq. two phase systems contg. PEG and, pH and polymer mol. wt. effect on, electrostatic effects in relation to)
RN 9004-54-0 HCAPLUS
CN Dextran (9CI) (CA INDEX NAME)

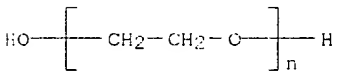
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT **25322-68-3**, Polyethyleneglycol
RL: BIOL (Biological study)
(protein partitioning in aq. two phase systems contg. dextran and, pH and polymer mol. wt. effect on, electrostatic effects in relation to)
RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



=> d bib abs hitstr L35 12

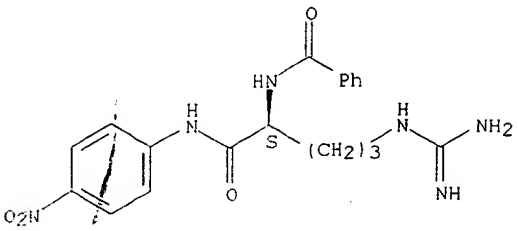
L35 ANSWER 12 OF 16 HCAPLUS COPYRIGHT 2001 ACS
AN 1992:79196 HCAPLUS
DN 116:79196
TI Increased activity and stability of poly(ethylene glycol)-modified trypsin
AU Gaertner, Hubert F.; Puigserver, Antoine J.
CS Cent. Biochim. Biol. Mol., CNRS, Marseille, Fr.
SO Enzyme Microb. Technol. (1992), 14(2), 150-5
CODEN: EMTED2; ISSN: 0141-0229
DT Journal
LA English
AB The reaction of trypsin with activated monomethoxypoly(ethylene glycol) with various mol. masses led to the development of a series of poly(ethylene glycol)-modified trypsins (**PEG**-trypsins). On detg. the catalytic properties of **PEG**-trypsin using N-benzoyl-L-arginine p-nitroanilide as a substrate, a three- to four-fold increase in the maximal velocity of hydrolysis was found to occur, whatever the size of the **PEG** moiety used. **PEG**-trypsin with higher mol. mass moieties showed lower Michaelis const. values. The activation of trypsin was neither reversed by nucleophiles such as hydroxylamine, nor prevented when modification was carried out in the presence of benzamidine or in the presence of the polypeptidic soybean trypsin inhibitor. Chem. modification of about 80% of the free amino groups with **PEG** chains significantly improved the resistance to heat and detergents. This might result from the formation of a highly **hydrogen-bonded** structure around the **enzyme**.
IT **9002-07-7D**, Trypsin, PEG-modified **25322-68-3D**, PEG, trypsin derivs.
RL: BIOL (Biological study)
(increased activity and stability against heat and detergents of, PEG moiety mol. mass effect on)
RN 9002-07-7 HCAPLUS
CN Trypsin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



IT **6208-93-1**
RL: RCT (Reactant)
(reaction of, with PEG-modified trypsin, kinetics of, PEG moiety mol. mass effect on)
RN 6208-93-1 HCAPLUS
CN Benzamide, N-[(1S)-4-[(aminoiminomethyl)amino]-1-[[(4-nitrophenyl)amino]carbonyl]butyl]- (9CI) (CA INDEX NAME)

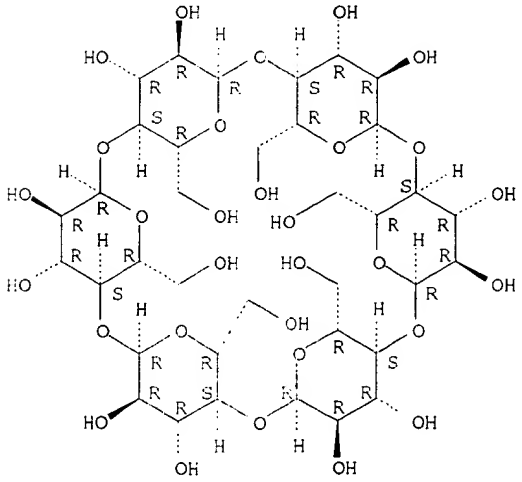
Absolute stereochemistry.



=> d bib abs hitstr L35 13

L35 ANSWER 13 OF 16 HCAPLUS COPYRIGHT 2001 ACS
AN 1991:627723 HCAPLUS
DN 115:227723
TI Electrostatic potentials and protein partitioning in aqueous two-phase systems
AU Haynes, C. A.; Carson, J.; Blanch, H. W.; Prausnitz, J. M.
CS Dep. Chem. Eng., Univ. California, Berkeley, CA, 94720, USA
SO AIChE J. (1991), 37(9), 1401-9
CODEN: AICEAC; ISSN: 0001-1541
DT Journal
LA English
AB A thermodn. anal. unambiguously relates interfacial-electrostatic-potential differences measured with Ag/AgCl capillary electrodes to the equil. properties of an aq. 2-2 phase system. Interfacial electrostatic potentials were measured as a function of total .alpha.-cyclodextrin concn. in an aq. 2-phase system contg. 9.1 wt.% PEG, 6.1 wt.% Dextran T-70, and 1-mM KI. An order-of-magnitude increase in the interfacial electrostatic potential was obsd. as the total concn. of .alpha.-cyclodextrin increased from 0 to 1 mM. Measured partition coeffs. for .alpha.-chymotrypsin, lysozyme, and bovine serum albumin depend strongly on .alpha.-cyclodextrin concn. for example, as the concn. of .alpha.-cyclodextrin rises from 0 to 1 mM, the partition coeff. of lysozyme decreases from 1.7 to 0.55. These measurements are in good agreement with theor. expectations.
IT **10016-20-3**, .alpha.-Cyclodextrin
RL: ANST (Analytical study)
(aq. 2-phase system for protein partitioning contg., electrostatic potential in relation to)
RN 10016-20-3 HCAPLUS
CN .alpha.-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

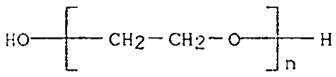


IT **9001-63-2**, Lysozyme **9004-07-3**, .alpha.-Chymotrypsin
RL: PRP (Properties)
(partition of, in aq. 2-phase system, electrostatic potential in relation to)
RN 9001-63-2 HCAPLUS
CN Lysozyme (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9004-07-3 HCAPLUS
CN Chymotrypsin (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT **9004-53-9**, Dextrin
RL: ANST (Analytical study)
(systems, **PEG**-water-, 2-phase, **protein** partition in, **electrostatic** potential in relation to)
RN 9004-53-9 HCAPLUS
CN Dextrin (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT **25322-68-3, PEG**
RL: ANST (Analytical study)
(systems, dextrin-water-, 2-phase, **protein** partition in, **electrostatic** potential in relation to)
RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



=> d bib abs hitstr L35 14

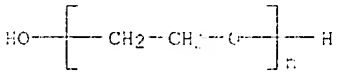
L35 ANSWER 14 OF 16 HCAPLUS COPYRIGHT 2001 ACS
AN 1991:37201 HCAPLUS
DN 114:37201
TI A phase partition purification process for covalently bound DNA/protein complexes
IN Fisher, Derek; Francis, Gillian Elizabeth; Anderson, Robert
PA Royal Free Hospital, UK
SO PCT Int. Appl., 84 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9004650	A1	19900503	WO 1989-GB1263	19891020
	W: JP, US				
	RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
	EP 439502	A1	19910807	EP 1989-911826	19891020
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
	JP 04501356	T2	19920312	JP 1989-511014	19891020
PRAI	GB 1988-24592		19881020		
	WO 1989-GB1263		19891020		

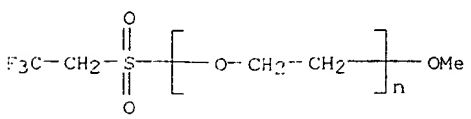
AB A process for sepg. covalent **DNA-protein** complexes from **noncovalent DNA-protein** complexes and unbound **DNA** comprises (1) treating the DNA-protein complexes with a reactive deriv. of **PEG**, and (2) subjecting the reaction mixt. to phase partition between an aq. **PEG** phase and an aq. phosphate phase. The process can be used to purify DNA topoisomerase-induced gene-assocd. DNA, to purify DNA comprising a protein binding site, to assay DNA topoisomerase activity or cleavage site specificity, and to assay DNA-protein crosslinking agents. The process was applied to enrichment of differentiation-specific protein-DNA complexes from retinoic acid- or phorbol ester-induced HL60 cells. The DNA produced was suitable for cloning. DNA-protein complexes with a single attached topoisomerase II were partitioned using this method. The partitioning process was found to be sensitive to the size of the DNA attached to the protein. The reactive **PEG** deriv. used was tresyl monomethoxy **PEG**. The process was also used to detect/assay DNA topoisomerase inhibitors.

IT **25322-68-3D**, Polyethylene glycol, reactive derivs.
121559-53-3
RL: PRP (Properties)
(in phase partition isolation of covalent DNA-protein complexes)

RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



RN 121559-53-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-[(2,2,2-trifluoroethyl)sulfonyl]-.omega.-methoxy- (9CI) (CA INDEX NAME)



IT **80449-01-0D**, DNA conjugates
RL: PRP (Properties)

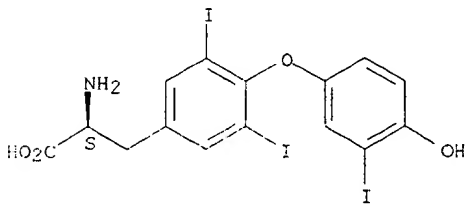
(isolation of, reactive PEG derivs. and phase partition in)
RN 80449-01-0 HCAPLUS
CN Isomerase, deoxyribonucleate topo- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

=> d bib abs hitstr L35 15

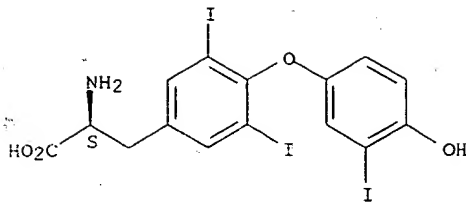
L35 ANSWER 15 OF 16 HCAPLUS COPYRIGHT 2001 ACS
AN 1989:1383 HCAPLUS
DN 110:1383
TI Conformational transition of thyroid hormone receptor upon hormone binding: demonstration by aqueous two-phase partitioning
AU Ichikawa, K.; Hashizume, K.; Miyamoto, T.; Nishii, Y.; Yamauchi, K.; Ohtsuka, H.; Yamada, T.
CS Sch. Med., Shinshu Univ., Matsumoto, 390, Japan
SO J. Endocrinol. (1988), 119(3), 431-7
CODEN: JOENAK; ISSN: 0022-0795
DT Journal
LA English
AB An aq. 2-phase partitioning study of partially purified nuclear thyroid hormone receptor from rat liver was performed. Stability of the T3-receptor complex and T3-binding activity in the presence of dextran or **PEG** were assessed to det. the amt. of occupied or unoccupied receptors in each phase. Partition coeffs. were calcd. as the ratio of receptor concn. in the upper **PEG**-rich phase H2O and that in the lower dextran-rich phase H2O. The partition coeff. was a sensitive function of the salt at pH >6.1 and <5.1. The salt had no effect on the partition coeff. at pH .apprx.5.6. These results suggest that the isoelec. point of the thyroid hormone receptor is .apprx.5.6, confirming previous detns. by isoelec. focusing. The partition coeff. of the receptor decreased on T3 binding, regardless of the salt compn. In contrast, the partition coeff. of T4-binding globulin increased on T3 binding. Free T3 preferentially partitioned into the upper **PEG** -rich phase and gave a partition coeff. <1.0. Apparently the decrease in the partition coeff. of the receptor on hormone binding reflects conformational changes or changes in **electrostatic** properties of the **receptor** on hormone binding. Such an alteration may be involved in biol. activation of the receptor on hormone binding.
IT **6893-02-3D**, Triiodothyronine, receptor complexes
RL: PRP (Properties)
(conformational transition of)
RN 6893-02-3 HCAPLUS
CN L-Tyrosine, O-(4-hydroxy-3-iodophenyl)-3,5-diiodo- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



IT **6893-02-3**, Triiodothyronine
RL: BIOL (Biological study)
(receptor binding of, conformation transition in relation to)
RN 6893-02-3 HCAPLUS
CN L-Tyrosine, O-(4-hydroxy-3-iodophenyl)-3,5-diiodo- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

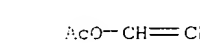

I
O
NH2
HO2C
S
I
OH
I

=> d bib abs hitstr L35 16

L35 ANSWER 16 OF 16 HCAPLUS COPYRIGHT 2001 ACS
AN 1982:168667 HCAPLUS
DN 96:168667
TI Adsorption of bovine serum albumin onto homo- and copolymer latexes
AU Suzawa, Toshiro; Shirahama, Hiroyuki; Fujimoto, Tetsuya
CS Fac. Eng., Hiroshima Univ., Hiroshima, 730, Japan
SO J. Colloid Interface Sci. (1982), 86(1), 144-50
CODEN: JCISA5; ISSN: 0021-9797
DT Journal
LA English
AB The adsorbability of bovine serum albumin (BSA) onto various synthetic polymer latexes was studied at different ionic strengths as a function of pH by detg. the amt. of protein adsorbed. Homopolymer latexes, polystyrene (PS) [**9003-53-6**], poly(Me methacrylate) (**PMMA**) [**9011-14-7**], and poly(vinyl acetate) (PVAc) [**9003-20-7**], and copolymer latexes, methacrylic acid-styrene copolymer (I) [**9010-92-8**], methacrylic acid-Me methacrylate-styrene copolymer (II) [**25035-81-8**] were prepd. without emulsifiers and monodisperse. All these materials were anionic latexes. The initial BSA concn. was 50 mg/dL, which corresponded to the first plateau level of the adsorption isotherm. With an increase of the ionic strength, the amt. of BSA adsorbed onto each latex increased except in the isoelec. region. The pH at max. adsorption shifted to a more acidic region with increasing strength. The amt. adsorbed showed a max. around the isoelec. point of BSA. This max. adsorption at each ionic strength increased in the order of PVAc, **PMMA**, PS, II, and I. With I and II latexes, the increment of the amt. adsorbed was related to **H bond** formation between the **protein** and the latex. The amt. of BSA adsorbed was dependent not only on the pH and the ionic strength but on the characterization of polymer latex surface.
IT **9003-20-7 9003-53-6 9010-92-8**
9011-14-7 25035-81-8
RL: BIOL (Biological study)
(latex, serum albumin adsorption on, pH effect on)
RN 9003-20-7 HCAPLUS
CN Acetic acid ethenyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

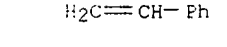
CRN 108-05-4
CMF C4 H6 O2



RN 9003-53-6 HCAPLUS
CN Benzene, ethenyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

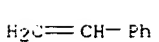
CRN 100-42-5
CMF C8 H8



RN 9010-92-8 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene (9CI) (CA INDEX NAME)

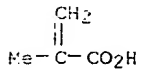
CM 1

CRN 100-42-5
CMF C8 H8



CM 2

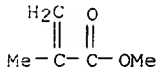
CRN 79-41-4
CMF C4 H6 O2



RN 9011-14-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

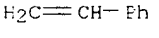
CRN 80-62-6
CMF C5 H8 O2



RN 25035-81-8 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

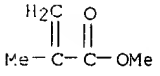
CM 1

CRN 100-42-5
CMF C8 H8



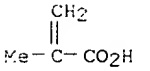
CM 2

CRN 80-62-6
CMF C5 H8 O2



CM 3

CRN 79-41-4
CMF C4 H6 O2



=> D BIB ABS L36 1

L36 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2001 ACS
AN 1997:163987 HCAPLUS
TI Water-soluble polyion complex associates of DNA and PEG-P(L-lysine) block copolymer.
AU Kataoka, Kazunori; Katayose, Satoshi
CS (kataoka @ rs.noda.sut.ac.jp), Science University Tokyo, Noda, 278, Japan
SO Book of Abstracts, 213th ACS National Meeting, San Francisco, April 13-17 (1997), POLY-060 Publisher: American Chemical Society, Washington, D. C. CODEN: 64AOAA
DT Conference; Meeting Abstract
LA English
AB Complex formation of poly(ethylene glycol)-poly(L-lysine) (**PEG**-PLL) AB type block copolymer with salmon testes DNA or Col El plasmid DNA in aq. milieu were studied from a standpoint of designing novel gene vector system used in vivo. The PLL segment of **PEG**-PLL conjugates with **DNA** through an **electrostatic** interaction to form a water-sol. and elec. stoichiometric complex. **PEG** segments surrounding the core of the polyion complex prevented the complex from pptn. even under elec. neutralized condition. The profile of the thermal melting curve revealed a higher stabilization of DNA structure in **PEG**-PLL/DNA complexes compared to that in the complex made from DNA and PLL homopolymer with the same mol. wt. as the PLL segment in **PEG**-PLL. This stabilizing effect on the DNA structure may be due to the compartmentalization of DNA into the microenvironment of **PEG** with low permittivity. The reversible nature of **PEG**-PLL/DNA complex was further verified through the addn. of polyanion (Poly-L-aspartic acid): Poly-L-aspartic acid replaced DNA in the complex with **PEG**-PLL, resulting in the release of free DNA in the medium. Further, **PEG**-PLL/DNA complex showed high resistance against DNase I attack, suggesting DNA protection through the segregation into the core of the assoc. having **PEG** palisade.

=> D BIB ABS L36 2

L36 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2001 ACS
AN 1988:202933 HCAPLUS
DN 108:202933
TI Dissociation studies of DNA/anti-DNA complexes in relation to anti-DNA avidity
AU Smeenk, Ruud J. T.; Van Rooijen, Anita; Swaak, Tom J. G.
CS Cent. Lab., Netherlands Red Cross Blood Transfus. Serv., Amsterdam, 1006 AK, Neth.
SO J. Immunol. Methods (1988), 109(1), 27-35
CODEN: JIMMBG; ISSN: 0022-1759
DT Journal
LA English
AB Antibodies to double-stranded DNA (dsDNA) differ in their avidity towards the antigen. The **electrostatic** interaction between **DNA** and anti-**DNA** is sensitive to increases in pH and/or ionic strength and therefore, elution studies employing either of these permit discrimination between anti-dsDNA populations that differ in avidity. Another way to det. anti-dsDNA avidity is the calcn. of Farr/**PEG** ratios. These are obtained by division of the amt. of anti-DNA measured with the Farr assay (which does not detect law avidity anti-dsDNA) by the amt. measured with the **PEG** assay (which does detect low avidity anti-dsDNA). With these sep. approaches, the authors compared the sera of systemic lupus erythematosus patients with nephritis with the sera of patients with central nervous system involvement. Farr/**PEG** ratios and sensitivity to high pH elution of anti-dsDNA in the sera of these patients both permitted discrimination between the 2 groups of patients. The anti-dsDNA of patients with nephritis has a higher avidity towards DNA than anti-dsDNA of patients with cerebral disease. There was a significant correlation between Farr/**PEG** ratios and the salt lability of anti-dsDNA.

=> D BIB ABS L36 3

L36 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2001 ACS
AN 1988:148539 HCAPLUS
DN 108:148539
TI Electrostatic properties of cryoimmunoglobulins
AU Lawson, Erlinda Q.; Brandau, Duane T.; Trautman, Philip A.; Middaugh, C. Russell
CS Dep. Mol. Biol., Univ. Wyoming, Laramie, WY, 82071, USA
SO J. Immunol. (1988), 140(4), 1218-22
CODEN: JOIMA3; ISSN: 0022-1767
DT Journal
LA English
AB Inhibition of the cryopptn. of cryoimmunoglobulins by neutral salts suggests that intermol. electrostatic (charge-charge) interactions are responsible for their abnormal soln. properties. To test this hypothesis, H+ titrn. curves and isoelec. points were measured for 2 monoclonal IgG cryoglobulins (Ger and Muk) and compared with 4 normal (cold sol.) monoclonal IgG. The cryoglobulin Ger manifested values outside the range encountered for the other proteins. The partitioning of the IgG proteins was also examd. in aq. **PEG**-dextran 2-phase systems in the presence of both pos. and neg. salt-induced electrostatic potentials across the phase interface. Both cryoglobulins behaved as if they were more neg. charged than the noncryoglobulins. The expts. support the hypothesis that the differences in soly. behavior of monoclonal cryoglobulin and noncryoglobulin proteins are caused by differences in the **electrostatic** properties of the **proteins**.

=> D BIB ABS L36 4

L36 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2001 ACS
AN 1981:26996 HCAPLUS
DN 94:26996
TI Rapid purification of covalently closed circular DNAs of bacterial plasmids and animal tumor viruses
AU McMaster, Gary K.; Samulski, Richard J.; Stein, Janet L.; Stein, Gary S.
CS Dep. Biochem. Mol. Biol., Univ. Florida, Gainesville, FL, 32610, USA
SO Anal. Biochem. (1980), 109(1), 47-54
CODEN: ANBCA2; ISSN: 0003-2697
DT Journal
LA English
AB Covalently closed circular (supercoiled) DNA from both bacterial clones (plasmid) and African green monkey cells (SV40) is purified by a method which involves immediate treatment of lysed cells with NaOH, followed by neutralization and PhOH extn. in a high salt concn. After the extn. mixt. was centrifuged, supercoiled DNA was found in the aq. phase, the **noncovalently** closed **DNA** mols. formed a white ppt. at the interphase. Contaminating RNA was eliminated from the aq. phase by RNase treatment and pptn. of the supercoiled DNA with **PEG**. Residual **PEG** was removed from ther resuspended DNA by CHCl3 extn. The purified supercoiled DNA is compatible with restriction enzymes, and is efficient at transforming both .chi.1776 and HB101 bacterial hosts. Centrifugation in ethidium bromide-CaCl or sucrose gradients is not necessary. The method is virtually independent of mol. size and gives high yields of supercoiled DNA. The technique is applicable to large-scale prepns. and as a rapid screening procedure in which 20-30 samples can be purified easily within 5-6 h.

=> D BIB ABS

L37 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2001 ACS
AN 1998:687893 HCAPLUS
DN 130:49320
TI Real-time analysis of immunogen complex reaction kinetics using surface plasmon resonance
AU Yu, Yong-Yi; Van Wie, Bernard J.; Koch, Alan R.; Moffett, David F.; Davis, William C.
CS Department of Chemical Engineering, Washington State University, Pullman, WA, 99164, USA
SO Anal. Biochem. (1998), 263(2), 158-168
CODEN: ANBCA2; ISSN: 0003-2697
PB Academic Press
DT Journal
LA English
AB Real-time biospecific interactions of immunogens, measured via BIAcore, were used to verify qual. a biosensor design which relies on analyte binding competition reactions to open cross-linked receptor channels. The complexes of importance are: (1) cardiac troponin I (TnI) and monoclonal mouse anti-TnI IgG mAb 265, (2) TnI and bispecific antibodies (BsAbs) which on one end recognize TnI while the other end recognizes nicotinic acetylcholine receptors (nAChRs), (3) nAChRs and rat anti-nAChR IgG mAb 148, (4) nAChRs and BsAbs, (5) nAChRs and Fab'148-TnI biopolymers, and (6) mAb 265 and Fab-TnI biopolymers. A commonly used sensor chip, CM5, was employed to immobilize TnI by covalent amine coupling, while bilayer membrane-assocd. **protein**, nAChR, was **noncovalently sequestered** on a HPA sensor chip via hydrophobic adsorption of membrane lipids. The epitopes of membrane-bound nAChRs were still available to immunogens after being immobilized. Kinetic rate consts. and affinities of these systems were calcd. from BIAcore sensorgrams. The order of magnitude for dissocn. rate consts. of the BsAb/TnI **linker** complex and biopolymer/mAb 265 complex is 10-2 s-1, which provides an opportunity for competitive binding of free analyte in the sensing systems. (c) 1998 Academic Press.
RE.CNT 23
RE
(1) Goldberg, M; Curr Opin Immunol 1993, V5, P278 HCAPLUS
(3) Karlsson, R; J Immunol Methods 1991, V145, P229 HCAPLUS
(4) Karlsson, R; J Immunol Methods 1995, V183, P43 HCAPLUS
(5) Kuziemko, G; Biochemistry 1996, V35, P6375 HCAPLUS
(6) Li, C; Mol Immunol 1985, V22, P321 HCAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d bib abs hitstr l50

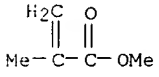
L50 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2001 ACS
AN 1985:209362 HCAPLUS
DN 102:209362
TI Rapidly disintegrating tablets coated with non-enteric and enteric films in comparison to commercial ones
AU Ghanem, Abdel-Halim; Nouh, Ahmed Talaat; Mahmoud, Hanaa; El-Saeed, Yousry; Fawzy, Abdel-Aziz; Graf, Engelbert
CS Fac. Pharm., Mansoura Univ., Mansoura, Egypt
SO Acta Pharm. Technol. (1985), 31(1), 38-41
CODEN: APTEDD; ISSN: 0340-3157
DT Journal
LA English
AB Com. pancreatin (I) [8049-47-6] tablets were evaluated in comparison to a selected formulation made by direct compression of equal parts of I and Avicel [9004-34-6] with 10% crosslinked poly(vinylpyrrolidone (II) [9003-39-8] as disintegrant. Tablets were coated with nonenteric and enteric films. Festal, Festavital and Nutrizym disintegrated in more than 1 h, while Spasmocanulase and Polyzyme disintegrated within 1 h in pH 6.8 buffer after 1 h in 0.1N HCl. Zymogen and Zymogen Fort disintegrated in 30-50 min in water or 0.1N-HCl. Thus, the former group may be enterically coated while the latter may be nonenterically coated. Noncoated lab. tablets disintegrated in 5 min. Coating with hydroxypropyl Me cellulose [9004-65-3] and polyethylene glycol [**25322-68-3**] did not alter the disintegration time. Tablets coated with II exhibited a 2-fold increase in the disintegration time, while those coated with Eudragit E [**24938-16-7**] showed a 4-fold increase. Enteric coating with cellulose acetate phthalate [9004-38-0] or Eudragit L [51822-44-7] resisted disintegration in 0.1N HCl for 1 h and disintegrated in buffer of pH 6.8 in 19 and 20 min. Amylase [9000-92-4] was not affected by the coating procedure, but lipase [9001-62-1] showed a marked loss in activity due to exposure to solvents during coating. Coating with hydroxypropyl Me cellulose, Eudragit E, cellulose acetate phthalate and Eudragit L provided satisfactory protection of the **enzymes**, while tablets coated with polyethylene glycol and II showed higher losses of **enzymes** than uncoatd tablets upon storage at 37.degree. for 3 mo.

=> d bib abs hitstr l54 1

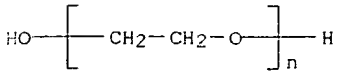
L54 ANSWER 1 OF 30 HCAPLUS COPYRIGHT 2001 ACS
AN 1998:657098 HCAPLUS
DN 129:347269
TI Measurements of .zeta. potentials of particulate biomaterials in protein-rich hyaluronan solution with changes in pH and protein constituents
AU Kitano, T.; Ohashi, H.; Kadoya, Y.; Kobayashi, A.; Yutani, Y.; Yamano, Y.
CS Department of Orthopaedic Surgery, Osaka City University, Osaka, 545-0051, Japan
SO J. Biomed. Mater. Res. (1998), 42(3), 453-457
CODEN: JBMRBG; ISSN: 0021-9304
PB John Wiley & Sons, Inc.
DT Journal
LA English
AB This study was undertaken to det. the .zeta. potentials of particulate biomaterials in three types of protein-rich hyaluronan soln. with changes in pH; a micro-electrophoretic method was used. For the purpose of detg. the pH value of synovial fluid in various inflammatory conditions, the authors collected synovial fluid samples from joints with osteoarthritis (OA), rheumatoid arthritis (RA), and those undergoing revisions arthroplasties. The mean values of the pH in the synovial fluid from joints with OA, RA, and revision arthroplasty were shown to be 7.9, 7.5, and 8.1, resp. The pH-.zeta. potential curves obtained differed, depending on the biomaterial and the medium. Addn. of .gamma.-globulin to the medium reduced the abs. value of the .zeta. potentials of some of the biomaterials. The findings of this study suggest that the electrophoretic behaviors of the particulate biomaterials tested in this study are affected by the protein constituents of and pH changes in protein-rich synovial fluid. The values we obtained will be useful as ref. stds. and will also aid in the study of the surface phenomena of biomaterials.
IT **9011-14-7**, Polymethyl methacrylate
RL: DEV (Device component use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(measurements of .zeta. potentials of particulate biomaterials in protein-rich hyaluronan soln. with changes in pH and protein constituents)
RN 9011-14-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 80-62-6
CMF C5 H8 O2



IT **25322-68-3**, Peg
RL: DEV (Device component use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ultrahigh mol. wt.; measurements of .zeta. potentials of particulate biomaterials in **protein**-rich hyaluronan soln. with changes in pH and **protein** constituents)
RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



=> d bib abs hitstr l54 2

L54 ANSWER 2 OF 30 HCAPLUS COPYRIGHT 2001 ACS
AN 1998:614092 HCAPLUS
DN 129:308532
TI Ink jet printing sheet for oily ink
IN Sekiguchi, Hideki; Chiga, Takao
PA Mitsubishi Paper Mills, Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 19 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10250219	A2	19980922	JP 1997-60612	19970314

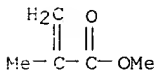
AB The title sheet comprises a support coated with an ink-receiving layer contg. a pigment, a hydrophobic, thermoplastic dyeing resin with d. .gtoreq.1.1 g/cm3, and a non-dyeing resin, in which the total content of the both resins is 100-300 wt.% to the pigment and the dyeing resin:non-dyeing resin ratio is 1-9:9-1. The sheet shows good coloring properties and provides high d. images with fat resistance in ink-jet recording using oily inks.

IT **9011-14-7**, Poly(methyl methacrylate) **25322-68-3**
RL: TEM (Technical or engineered material use); USES (Uses)
(ink-jet printing **receptor** contg. pigment, dyeing resin, and non-dyeing resin)

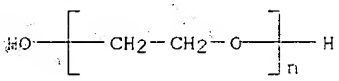
RN 9011-14-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 80-62-6
CMF C5 H8 O2

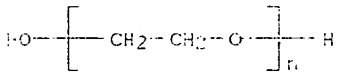


RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



=> d bib abs hitstr l54 3

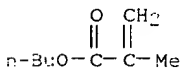
L54 ANSWER 3 OF 30 HCAPLUS COPYRIGHT 2001 ACS
AN 1998:338406 HCAPLUS
DN 129:29244
TI Self-Regulated Phase Transfer of Cu2O/bpy, Cu(0)/bpy, and Cu2O/Cu(0)/bpy Catalyzed "Living" Radical Polymerization Initiated with Sulfonyl Chlorides
AU Percec, V.; Barboiu, B.; van der Sluis, M.
CS W. M. Keck Laboratories for Organic Synthesis Department of Macromolecular Science, Case Western Reserve University, Cleveland, OH, 44106-7202, USA
SO Macromolecules (1998), 31(12), 4053-4056
CODEN: MAMOBX; ISSN: 0024-9297
PB American Chemical Society
DT Journal
LA English
AB Cu2O/bpy, Cu(0)/bpy and Cu2O/Cu(0)/bpy (bpy = 2,2'-bipyridine) in the presence of a variety of thermally stable multidentate acyclic neutral ligands (such as octopus-like compds., polyethylene glycol (PEG) and even ethylene glycol (EG)) as phase transfer catalysts (PTC) provide the most efficient and the simplest catalysts for "living" radical polymn. initiated with aryl and alkyl sulfonyl halides. They generate, in situ, the true CuCl catalyst and regulate both its concn. and the concn. of its CuCl2 oxidized state, and therefore, can be considered to self-regulate both the catalyst concn. and to generate the homogeneous polymn. in a heterogeneous reaction mixt. The extent of the control of "living" radical polymn. with these new catalyst systems exceed that of the previously known heterogeneous and homogeneous catalyst systems based on CuCl and various unsubstituted and substituted bpy since they produce Mw/Mn as narrow or even narrower than the CuCl homogeneous and higher rates than the CuCl heterogeneous systems.
IT **25322-68-3**, Polyethylene glycol
RL: CAT (Catalyst use); USES (Uses)
(catalyst; self-regulated phase transfer of Cu2O/bpy, Cu(0)/bpy, and Cu2O/Cu(0)/bpy catalyzed living radical polymn. of Bu methacrylate and styrene initiated with sulfonyl chlorides and mediated by multidentate acyclic neutral **ligands**)
RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



IT **9003-63-8P**, Butyl methacrylate homopolymer
RL: SPN (Synthetic preparation); PREP (Preparation)
(self-regulated phase transfer of Cu2O/bpy, Cu(0)/bpy, and Cu2O/Cu(0)/bpy catalyzed living radical polymn. of Bu methacrylate and styrene initiated with sulfonyl chlorides and mediated by multidentate acyclic neutral ligands)
RN 9003-63-8 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, butyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 97-88-1
CMF C8 H14 O2

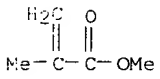


=> d bib abs hitstr l54 4

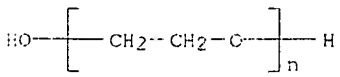
L54 ANSWER 4 OF 30 HCAPLUS COPYRIGHT 2001 ACS
AN 1997:307053 HCAPLUS
DN 127:23724
TI Plasma protein adsorption and platelet adhesion onto PEO-entrapped PMMA film surfaces prepared by photo-induced polymerization
AU Lee, Jin Ho; Kim, Su Kyoung
CS S. Korea
SO Pollimo (1997), 21(2), 332-341
CODEN: POLLDG; ISSN: 0379-153X
PB Polymer Society of Korea
DT Journal
LA English
AB Polyethylene oxide (PEO)-entrapped polymethyl methacrylate (PMMA) films were prepd. by photo-induced polymn. of Me methacrylate (MMA) contg. 1 .apprx.20 wt% of PEO with different mol. wt. (400, 10000, and 100000). The photopolymn. was carried out using a 100 W UV light source (wavelength, 365 nm). The prepd. PEO-entrapped PMMA film surfaces were characterized by the measurement of water contact angle and electron spectroscopy for chem. anal. (ESCA). The stability of PEO entrapped in PMMA films was also examd. by immersing the films in water for up to 7 days with continuous shaking and measuring the wt. changes. The behavior of plasma protein adsorption and platelet adhesion on the PEO-entrapped PMMA film surfaces was investigated. It was obsd. that the plasma protein adsorption and platelet adhesion on the film surfaces decreased with increasing PEO mol. wt. and its surface d. The PEO 100,000-entrapped surfaces with high content were very effective for the prevention of protein adsorption and platelet adhesion.
IT **9011-14-7**, Pmma **25322-68-3**
RL: BAC (Biological activity or effector, except adverse); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(plasma **protein** adsorption and platelet adhesion onto PEO-entrapped PMMA film surfaces prepd. by photo-induced polymn.)
RN 9011-14-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 80-62-6
CMF C5 H8 O2



RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



=> d bib abs hitstr 154 5

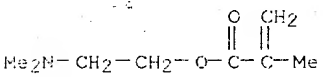
L54 ANSWER 5 OF 30 HCAPLUS COPYRIGHT 2001 ACS
AN 1996:734036 HCAPLUS
DN 126:11538
TI Transdermal compositions containing tamsulosin as .alpha.1 receptor antagonist
IN Mitomi, Mitsuo; Katsuma, Masataka; Saito, Katsumi; Ooishi, Naoko; Yasuda, Tatsuo; Fukui, Muneo
PA Yamanouchi Pharma Co Ltd, Japan
SO Jpn. Kokai Tokkyo Koho, 14 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08245377	A2	19960924	JP 1995-56104	19950315

AB Transdermal compns. contain tamsulosin as .alpha.1 receptor antagonist with addn. of acrylic or silicone adhesives, transdermal promoters and solvents. A transdermal tape is prepd. by heating a mixt. contg. tamsulosin 5, HPC-SL 35 and PEG 400 60 parts, allowing to stand overnight to form matrix, adhering the matrix to an adhesive-contg. sheet and covering with a separable sheet. Animal expts. indicated that the bioavailability was high.
IT **24938-16-7 25322-68-3**
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(transdermal compns. contg. tamsulosin as .alpha.1 **receptor** antagonist)
RN 24938-16-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with 2-(dimethylamino)ethyl 2-methyl-2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

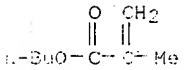
CM 1

CRN 2867-47-2
CMF C8 H15 N O2



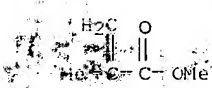
CM 2

CRN 97-88-1
CMF C8 H14 O2

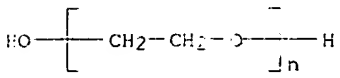


CM 3

CRN 80-62-6
CMF C5 H8 O2



RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)

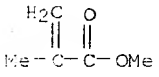


=> d bib abs hitstr 154 6

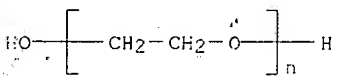
L54 ANSWER 6 OF 30 HCAPLUS COPYRIGHT 2001 ACS
AN 1996:521400 HCAPLUS
DN 125:230666
TI Low-protein adsorption biomaterials from polymer blends
AU Ding, Y. Samuel; Cin, Chuan
CS Baxter Healthcare Corporation, Round Lake, IL, 60073, USA
SO Annu. Tech. Conf. - Soc. Plast. Eng. (1996), 54th(Vol. 3), 2767-2771
CODEN: ACPED4; ISSN: 0272-5223
DT Journal
LA English
AB Low-protein adsorption biomaterials have been prepd. using the polymer blend approach. The material can be economically produced by melt blending a water sol. surface-modifying polymer as an additive into a base polymer to achieve a hydrophilic low protein adsorption surface. With the right choice of water sol. polymer additives, the degree of hydrophilicity has been correlated to its protein adsorption properties. The effectiveness of modifying the base polymer to achieve low protein adsorption is detd. by the ability to drive the water sol. polymers to the surface and permanently anchoring it onto the base polymer surface. This study demonstrated that by choosing the materials with proper glass transition temps., we can modify the surfaces to achieve hydrophilicity and low protein adsorption properties with good permanency.
IT **9011-14-7**, PMMA **25322-68-3**, Polyethylene glycol
RL: POF (Polymer in formulation); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(low-**protein** adsorption biomaterials from polymer blends)
RN 9011-14-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 80-62-6
CMF C5 H8 O2



RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)

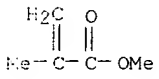


=> d bib abs hitstr l54 7

L54 ANSWER 7 OF 30 HCAPLUS COPYRIGHT 2001 ACS
AN 1996:409349 HCAPLUS
DN 125:109472
TI Alternative modes of precipitation of Eudragit S 100: a potential ligand carrier for affinity precipitation of protein
AU Dong, Guoqiang; Batra, Renu; Kaul, Rajni; Gupta, Munishwar; Mattiasson, Bo
CS Center for Chemistry and Chemical Engineering, Lund University, Lund, S-221 00, Swed.
SO Bioseparation (1995), 5(6), 339-350
CODEN: BISPE4; ISSN: 0923-179X
DT Journal
LA English
AB The soly.-insoly. characteristics of Eudragit S100, an enteric polymer, under different conditions, have been studied and analyzed. This has been done with a view of its role as a ligand carrier for the purifn. of proteins by affinity pptn. The polymer pptd. from aq. soln. at pH 4.7; the pH required for the pptn. was found to be raised in the presence of polyethylene glycol and ammonium sulfate, resp. Eudragit pptn. could also be induced in a neutral environment by the addn. of calcium ions. The combination of calcium ions with high temp. or water-miscible org. solvent provided an alternative means of complete pptn. of the polymer without change in pH; and the ppts. formed were more compact, trapping relatively lower amt. of water. The pptn. of Ca2+/org. solvent mode led to a decrease in non-specific adsorption of proteins to the polymer. The presence of a covalently bound ligand mol., Cibacron blue 3GA was seen to significantly alter the pptn. behavior of the polymer. The pptn. of the modified polymer was achieved at relatively higher pH values, and at lower calcium ion concn./temp., resp.
IT **25086-15-1**, Eudragit S100
RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(alternative modes of pptn. of Eudragit S 100, a potential ligand carrier for affinity pptn. of protein)
RN 25086-15-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

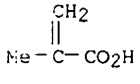
CM 1

CRN 80-62-6
CMF C5 H8 O2

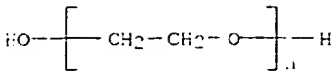


CM 2

CRN 79-41-4
CMF C4 H6 O2



IT **25322-68-3**, Polyethylene glycol
RL: NUU (Nonbiological use, unclassified); USES (Uses)
(alternative modes of pptn. of Eudragit S 100, a potential **ligand** carrier for affinity pptn. of **protein**)
RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



=> d bib abs hitstr l54 8

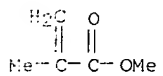
L54 ANSWER 8 OF 30 HCAPLUS COPYRIGHT 2001 ACS
AN 1995:484546 HCAPLUS
DN 122:229080
TI Ferromagnetic powders, manufacturing, and magnetic recording materials using thereof
IN Sasaki, Taro; Kamihira, Akira
PA Sony Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 140 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 06251925	A2	19940909	JP 1993-299166	19930917
PRAI	JP 1992-275218		19920918		
	JP 1992-360959		19921229		

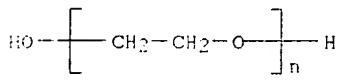
AB Title powders are powd. oxide-coated ferroelec. metals or powd. ferroelec. Fe oxide and are manufd. by addg. an org. coagulant to an aq. slurry, washing, drying, and sintering or reducing, wherein the org. coagulant are chosen from polyacrylamide, poly(acrylic acid), poly(vinyl alc.), poly(Me methacrylate), poly(Me acrylate), poly(methacrylic acid), poly(ammonium methacrylate), CM-cellulose, polyoxyethylene, and quaternary ammonium polymers. The use of the org. coagulants provides the slurry with an easy processing in the washing, drying, and forming.
IT **9011-14-7**, Poly(methyl methacrylate) **25322-68-3**
RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(**coagulant** for ferromagnetic slurry for easy processing)
RN 9011-14-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 80-62-6
CMF C5 H8 O2



RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



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=> d bib abs hitstr 154 9

L54  ANSWER 9 OF 38  HCAPLUS  COPYRIGHT 2001 ACS
AN   1994:694128  HCAPLUS
DN   121:294425
TI   Methods and apparatus for DNA sequencing
IN   Ulmer, Kevin M.
PA   Seq, Ltd., USA
SO   PCT Int. Appl., 138 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.         KIND  DATE          APPLICATION NO.   DATE
     ---------------    ----  --------      ---------------   --------
PI   WO 9418218         A1    19940818      WO 1994-US1156    19940131
         W:  AU, BB, BG, BR, BY, CA, CN, CZ, FI, HU, JP, KR, KZ, LK, LV, MG,
             MN, MW, NO, NZ, PL, RO, RU, SD, SK, UA, UZ
         RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE,
             BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG
     CA 2155186         AA    19940818      CA 1994-2155186   19940131
     AU 9461316         A1    19940829      AU 1994-61316     19940131
     AU 673245          B2    19961031
     EP 682671          A1    19951122      EP 1994-907944    19940131
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE
     JP 08506664        T2    19960716      JP 1994-518167    19940131
     AU 9712281         A1    19970327      AU 1997-12281     19970122
PRAI US 1993-12962      19930201
     WO 1994-US1156     19940131
AB   The present invention provides a method and app. for automated DNA
     sequencing.  The method of the invention includes the steps of: (a) using
     a processive exonuclease to cleave from a single DNA strand the next
     available single nucleotide of the strand; (b) transporting the single
     nucleotide away from the DNA strand; (c) incorporating the single
     nucleotide in a fluorescence-enhancing matrix; (d) irradiating the single
     nucleotide to cause it to fluoresce; (e) detecting the fluorescence; (f)
     identifying the single nucleotide by its fluorescence; and (g) repeating
     steps (a) to (f) indefinitely (e.g, until the DNA strand is fully cleaved
     or until a desired length of the DNA is sequenced).  The nucleotides are
     advantageously detected by irradiating the nucleotides with a laser to
     stimulate their natural fluorescence.  The nucleotide is transported from
     the site of cleavage by a flowing aq. soln. and the nucleotide-contg.
     soln. is injected into a flowing sheath soln. of, e.g., propane or ethane.
     The sample is then cooled to 85-170.degree.K before laser excitation of
     the nucleotide and detection of fluorescence.
IT   9011-14-7, Polymethylmethacrylate 25322-68-3,
     Polyethylene glycol
     RL: ARU (Analytical role, unclassified); ANST (Analytical study)
        (automated DNA sequencing by sequential exonuclease cleavage
        and fluorometric detection of individual nucleotides)
RN   9011-14-7  HCAPLUS
CN   2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (9CI)  (CA INDEX
     NAME)

     CM   1

     CRN  80-62-6
     CMF  C5 H8 O2
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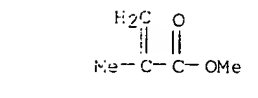

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RN   25322-68-3  HCAPLUS
CN   Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI)  (CA INDEX
     NAME)
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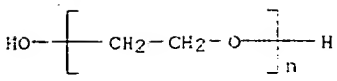

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=> d bib abs hitstr 154 10

L54  ANSWER 10 OF 30  HCAPLUS  COPYRIGHT 2001 ACS
AN   1994:686679  HCAPLUS
DN   121:286679
TI   Protein-compatible polymer blends with hydrophilic surfaces
IN   Ding, Samuel; Qin, Chuan; Rabinow, Barrett
PA   Baxter International Inc., USA
SO   PCT Int. Appl., 36 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.         KIND  DATE          APPLICATION NO.   DATE
     ---------------    ----  --------      ---------------   --------
PI   WO 9403544         A1    19940217      WO 1993-US6622    19930714
         W:  JP
         RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
     EP 605705          A1    19940713      EP 1993-917174    19930714
     EP 605705          B1    19970521
         R:  CH, DE, FR, GB, LI
     JP 07502563        T2    19950316      JP 1993-505323    19930714
PRAI US 1992-921174     19920729
     WO 1993-US6622     19930714
AB   Polymer blends made from a water-sol. polymer and a matrix polymer are
     provided which are extrudable into films and show little tendency to
     adsorb proteins from soln.  The glass transition temp. of either the
     water-sol. polymer or the matrix polymer is greater than the temp. at
     which the protein-compatible polymer blend is to be used.  The water-sol.
     polymer is e.g. PEO, PVA, polyacrylamide, PVP, or poly(acrylic acid); the
     matrix polymer is an ethylene/vinyl acetate copolymer, a polyolefin, PVC,
     polystyrene, a polyurethane, etc.  The polymer films are useful in manuf.
     of medical devices and containers for pharmaceuticals.  They are prepd. by
     blending the polymers, melting the blend, and exposing the blend to shear
     conditions such that the water-sol. polymer moves onto the surface of the
     matrix polymer substrate through shear.
IT   9011-14-7, Poly(methyl methacrylate) 25322-68-3, PEO
     RL: POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological
     study); USES (Uses)
        (blends, films; protein-compatible polymer blends with
        hydrophilic surfaces for medical use)
RN   9011-14-7  HCAPLUS
CN   2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (9CI)  (CA INDEX
     NAME)

     CM   1

     CRN  80-62-6
     CMF  C5 H8 O2
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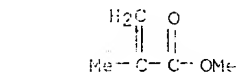

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RN   25322-68-3  HCAPLUS
CN   Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI)  (CA INDEX
     NAME)
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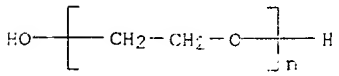
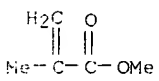


=> d bib abs hitstr 154 11

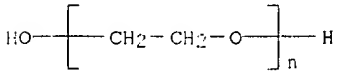
154 ANSWER 11 OF 30 HCAPLUS COPYRIGHT 2001 ACS
AN 1994:612894 HCAPLUS
DN 121:212894
TI Biomaterials with permanent hydrophilic surfaces and low protein adsorption properties
AU Rabinow, B. E.; Ding, Y. S.; Qin, C.; McHalsky, M. L.; Schneider, J. H.; Ashline, K. A.; Shelbourn, T. L.; Albrecht, R. M.
CS I. V. Systems Div., Baxter Healthcare Corp., Round Lake, IL, 60073, USA
SO J. Biomater. Sci., Polym. Ed. (1994), 6(1), 91-109
CODEN: JBSEEA; ISSN: 0920-5063
DT Journal
LA English
AB Low protein absorbing polymer films were prepd. with which to fabricate i.v. containers, designed for compatibility with low concns. of protein drugs. The material is economically manufd. utilizing phys. melt blending of water-sol. surface-modifying polymers (PEO, PEOX, PVA, and PNVP) with a base polymer (EVA, PP, PETG, PMMA, SB, and nylon). Permanency of the hydrophilic surfaces so generated was confirmed by surface contact angle expts. and total org. carbon leachables anal. of the aq. contacting solns. Binding of IgG, albumin and insulin was studied. A 6-fold redn. of protein adsorption was obtained by adding 5% PVA13K to EVA, for IgG at a bulk concn. of 2.5 ppm. Surface bound protein measured by micro-BCA colorimetry, agreed with the soln. protein lost, as detd. by the Fluoraldehyde procedure. Imaging of the protein exposed plastic surfaces by silver enhanced protein conjugated gold staining agreed with the quant. assay detns.
IT **9011-14-7**, PMMA
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(biomaterials with permanent hydrophilic surfaces and low protein adsorption properties)
RN 9011-14-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 80-62-6
CMF C5 H8 O2



IT **25322-68-3**, Polyoxyethylene
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(surface modifier; biomaterials with permanent hydrophilic surfaces and low **protein** adsorption properties)
RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)

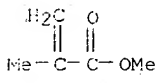


=> d bib abs hitstr l54 12

L54 ANSWER 12 OF 30 HCAPLUS COPYRIGHT 2001 ACS
AN 1993:18816 HCAPLUS
DN 118:18816
TI Purification of recombinant protein A by aqueous two-phase extraction integrated with affinity precipitation
AU Kamihira, Masamichi; Kaul, Rajni; Mattiasson, Bo
CS Dep. Biotechnol., Univ. Lund, Lund, Swed.
SO Biotechnol. Bioeng. (1992), 40(11), 1381-7
CODEN: BIBIAU; ISSN: 0006-3592
DT Journal
LA English
AB Aq. two-phase extn. incorporated affinity pptn. was examd. as a technique for protein purifn. An enteric coating polymer, Eudragit S100, was employed as a ligand carrier. Eudragit was specifically partitioned to the top phase in the aq. two-phase systems. For application of this method to purifn. of recombinant protein A using human IgG coupled to Eudragit in an aq. two-phase system, 80% of protein A added was recovered with 81% purity. The purity was enhanced 26-fold by this method. The IgG-Eudragit could be used repeatedly for the purifn. process. This sepn. method should be applicable to industrial-scale purifn. as a new purifn. procedure combining the advantages and compensating for the disadvantages of the aq. two-phase method and affinity pptn. method.
IT **25086-15-1**, Eudragit S100
RL: ANST (Analytical study)
(in proteins purifn. by extn. combined with affinity pptn.)
RN 25086-15-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

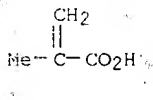
CM 1

CRN 80-62-6
CMF C5 H8 O2

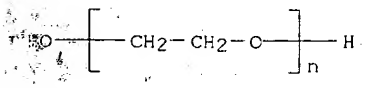


CM 2

CRN 79-41-4
CMF C4 H6 O2



IT **25322-68-3**, PEG 8000
RL: ANST (Analytical study)
(systems, Reppal PES 2000-, in two-phase extn. of **proteins**)
RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



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=> d bib abs hitstr 154 13

L54  ANSWER 13 OF 30  HCAPLUS  COPYRIGHT 2001 ACS
AN   1992:533086  HCAPLUS
DN   117:133086
TI   Ink-jet recording sheet
IN   Light, William A.
PA   Eastman Kodak Co., USA
SO   U.S., 8 pp.
     CODEN: USXXAM
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.         KIND  DATE           APPLICATION NO.   DATE
     ---------------    ----  --------       ---------------   --------
PI   US 5146193         A     19920630       US 1991-752754    19910830
     WO 9304870         A1    19930318       WO 1992-US7163    19920827
         W:  JP
         RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE
     EP 555450          A1    19930818       EP 1992-918650    19920827
     EP 555450          B1    19961016
         R:  BE, DE, FR, GB, NL
     JP 06501659        T2    19940224       JP 1993-505254    19920827
PRAI US 1991-752754    19910830
     WO 1992-US7163    19920827
OS   MARPAT 117:133086
AB   The title sheets, transparent, have ink-receptor layers contg.
     poly(vinylpyrrolidone) (I), cyclohexanedimethanol-isophthalic acid-Na
     sulfoisophalic acid copolymer (II), C2-6 epoxide polymers, poly(vinyl
     alc.) (III), inert particles, and the surfactants R2O(CHR1CH2O)nR3 (R1 =
     H, Me; R2, R3 = H, C1-4 alkyl, Ph; n = 1-10).  Thus, jet printing on a
     sheet with a receptor layer contg. I, II, polyoxyethylene, III, Propasol B
     (surfactant), and Me methacrylate-divinylbenzene copolymer particles gave
     clear images with optical d. 1.15.
IT   9017-37-2, Divinylbenzenemethyl methacrylate copolymer
     25322-68-3
     RL: USES (Uses)
        (in receptor sheets for jet printing)
RN   9017-37-2  HCAPLUS
CN   2-Propenoic acid, 2-methyl-, methyl ester, polymer with diethenylbenzene
     (9CI)  (CA INDEX NAME)

     CM   1

     CRN  1321-74-0
     CMF  C10 H10
     CCI  IDS
     CDES 3:ID
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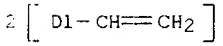

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     CM   2

     CRN  30-62-6
     CMF  C5 H8 O2
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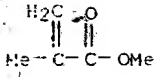
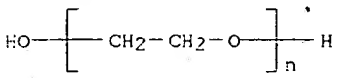


RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



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=> d bib abs hitstr 154 14

L54  ANSWER 14 OF 30  HCAPLUS  COPYRIGHT 2001 ACS
AN   1992:500824  HCAPLUS
DN   117:100824
TI   Diffusion-transfer color photographic receptor containing water-soluble
     polymer
IN   Nakamura, Yoshisada; Aono, Toshiaki
PA   Fuji Photo Film Co., Ltd., Japan
SO   Jpn. Kokai Tokkyo Koho, 27 pp.
     CODEN: JKXXAF
DT   Patent
LA   Japanese
FAN.CNT 1
     PATENT NO.         KIND  DATE           APPLICATION NO.   DATE
     ---------------    ----  --------       ---------------   --------
PI   JP 03246544        A2    19911101       JP 1990-43788     19900223
AB   In the title receptor in which a diffusible dye is received and fixed, of
     the layers constituting the receptor at least the mordant-contg. layer
     contains .gtoreq.1 kind of water-sol. polymers which and the mordant are
     not in a phase sepn. state in a coating soln. comprising the components
     constituting the layer but effect a microphase sepn. in the coating film
     after coating and before drying to form a dry film.
IT   25322-68-3
     RL: USES (Uses)
        (diffusion-transfer color photog. receptors contg.)
RN   25322-68-3  HCAPLUS
CN   Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI)  (CA INDEX
     NAME)
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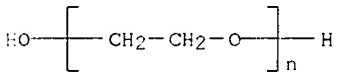

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IT   142988-05-4
     RL: USES (Uses)
        (mordant, diffusion-transfer color photog. receptors contg.)
RN   142988-05-4  HCAPLUS
CN   1H-Imidazolium, 1-[2-(2,3-dihydroxypropoxy)-2-oxoethyl]-3-ethenyl-2-methyl-
     , chloride, polymer with 1-ethenyl-2-methyl-1H-imidazole and methyl
     2-methyl-2-propenoate (9CI)  (CA INDEX NAME)

     CM   1

     CRN  142988-04-3
     CMF  C11 H17 N2 O4 . Cl
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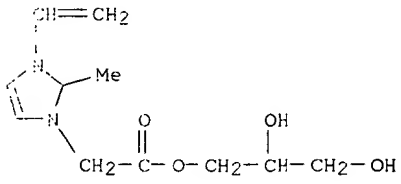

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     CM   2

     CRN  2851-95-8
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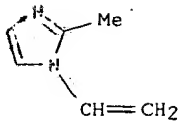
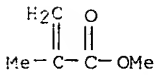
CMF C6 H8 N2



CM 3

CRN 80-62-6
CMF C5 H8 O2



=> d bib abs hitstr l54 15

L54 ANSWER 15 OF 30 HCAPLUS COPYRIGHT 2001 ACS
AN 1992:436543 HCAPLUS
DN 117:36543
TI Transparent receptor for electrophotographic toner image for production of transparency
IN Malhotra, Shadi L.
PA Xerox Corp., USA
SO Eur. Pat. Appl., 22 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 463400	A1	19920102	EP 1991-109012	19910603
	EP 463400	B1	19970402		
	R: DE, FR, GB				
	US 5202205	A	19930413	US 1990-544577	19900627
	CA 2041911	AA	19911228	CA 1991-2041911	19910507
	CA 2041911	C	19981222		
	JP 04232773	A2	19920821	JP 1991-148811	19910620
PRAI	US 1990-544577		19900627		

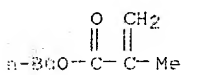
AB The title receptor is obtained by coating a transparent substrate, on both sides, with an adhesive layer and overcoating each adhesive layer with an antistatic layer comprising metal halides or urea compds. and polymers contg. oxyalkylene segments. An electrophotog. toner image of high optical d. is readily transferred to the receptor and can not be hand wiped or lifted with a scotch tape.

IT **9003-63-8**, Poly(butyl methacrylate) **9011-15-8**, Poly(isobutyl methacrylate) **9011-53-4**, Butyl methacrylate-isobutyl methacrylate copolymer **25322-68-3**
RL: USES (Uses)
(electrophotog. transparent image **receptors** contg., for prodn. of transparencies)

RN 9003-63-8 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, butyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

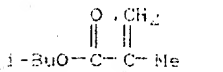
CRN 97-88-1
CMF C8 H14 O2



RN 9011-15-8 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-methylpropyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

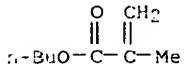
CRN 97-86-9
CMF C8 H14 O2



RN 9011-53-4 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with 2-methylpropyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

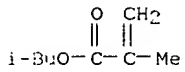
CM 1

CRN 97-88-1
CMF C8 H14 O2

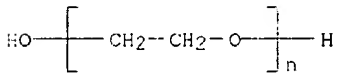


CM 2

CRN 97-86-9
CMF C8 H14 O2



RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



=> d bib abs hitstr l54 16

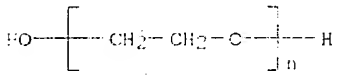
L54 ANSWER 16 OF 30 HCAPLUS COPYRIGHT 2001 ACS
AN 1992:265652 HCAPLUS
DN 116:265652
TI Image receptor sheet for color proofing
IN Seki, Shigemi; Nakahara, Katsuji; Miyagawa, Katsutoshi
PA Toray Industries, Inc., Japan
SO Jpn. Kokai Tokkyo Koho, 17 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 03206462	A2	19910909	JP 1990-2089	19900108

AB The title receptor sheet comprises a polyester support having a thermal contracting rate (150.degree.) .ltoreq. 2% and sp. gr. .ltoreq. 0.95, and a coating layer based on .gtoreq. 1 selected from (1) an aq. ethylenic ionomer, (2) a halogenated (10-80%) polyolefin, (3) a copolymer based on ethylene and an unsatd. carboxylic acid and(or) an unsatd. carboxylic acid ester, and (4) a nonaq. polyester (glass transition temp. 5-90.degree.) grafted with an unsatd. compd. contg. alkoxysilane or glycidyl. The receptor sheet possess low d., good whiteness, good cushioning, and good folding strength, and is useful in making color proofs.

IT **25322-68-3**, Polyethylene glycol
RL: USES (Uses)
(polyester film contg., for color proofing **receptor** sheets for)

RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)

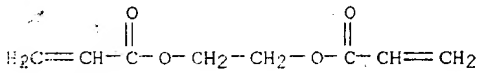


IT **100942-95-8D**, carboxy- and methylol-group modified
RL: USES (Uses)
(receptor sheet coating of, of color proofing)

RN 100942-95-8 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 1,2-ethanediyl di-2-propenoate (9CI) (CA INDEX NAME)

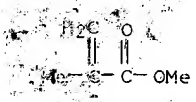
CM 1

CRN 2274-11-5
CMF C8 H10 O4



CM 2

CRN 80-62-6
CMF C5 H8 O2



=> d bib abs hitstr 154 17

L54 ANSWER 17 OF 30 HCAPLUS COPYRIGHT 2001 ACS
AN 1992:153978 HCAPLUS
IN 116:153978
TI Transparent ink jet receptor elements
IN Light, William A.
PA Eastman Kodak Co., USA
SO U.S., 7 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 5084340	A	19920128	US 1990-621481	19901203

OS MARPAT 116:153978
AB Receptors capable of controlling ink dot sizes and having smooth surfaces comprise supports and coating layers contg. poly(vinylpyrrolidone), poly[cyclohexylenedimethylene-oxydiethylene isophthalate-(sodiosulfo)isophthalate] (I) particles, poly(vinyl alc.) (II), C2-6 alkylene oxide polymers, fluoro surfactants CF3(CF2)mCH2CH2(OCH2CH2)nOR (R = H, C1-10-alkyl; m = 2-10; n = 1-18), and inert particles. Thus, a compn. comprising Kollidon 90, I (AQ 55S), II (Airvol 325), Zonyl FSN, divinylbenzene-Me methacrylate copolymer particles, and poly(ethylene oxide) was spread at 15 .mu.m dry thickness on a 101.6-.mu.m poly(ethylene terephthalate) film coated with a subbing layer of acrylic acid-acrylonitrile-vinylidene chloride copolymer.
IT **9017-37-2**, Divinylbenzene-methyl methacrylate copolymer
RL: USES (Uses)
(coatings contg. particles of, smooth, for transparent ink-jet printing receptors)
RN 9017-37-2 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with diethenylbenzene (9CI) (CA INDEX NAME)

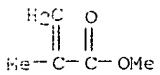
CM 1

CRN 1321-74-0
CMF C10 H10
CCI IDS
CDES 8:ID

2 [D1-CH=CH2]

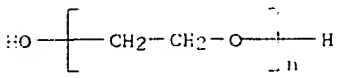
CM 2

CRN 80-62-6
CMF C5 H8 O2



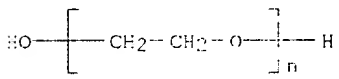
IT **25322-68-3**
RL: USES (Uses)
(coatings contg., smooth, for transparent ink-jet printing

receptors'
RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



-> d bib abs hitstr 154 18

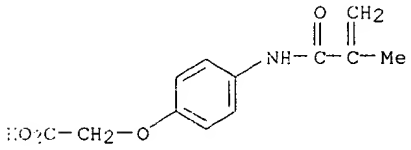
L54 ANSWER 18 OF 30 HCAPLUS COPYRIGHT 2001 ACS
AN 1992:53306 HCAPLUS
DN 116:53306
TI The effect of polymers on formation of carcinogenic-protein antigens in initiation of chemical cancerogenesis in C3HA mice
AU Korosteleva, T. A.; Belokhvostova, A. T.; Movsesyan, K. S.; Solovskii, M. V.; Panarin, E. F.
CS Res. Inst. Oncol., Leningrad, 199004, USSR
SO Eksp. Onkol. (1991), 13(4), 15-18
CODEN: EKSODD; ISSN: 0204-3564
DT Journal
LA Russian
AB Eight synthetic polymers were studied for their effect on the formation of carcinogenic-protein antigens (CPA) in the blood serum and liver of mice given benzidine for 15 days. A pronounced inhibition of CPA formation in the liver was obsd. under the influence of poly(vinylpyrrolidone), polyacrylic acid, and a copolymer of acrylamide and Me sulfate of dimethylaminoethylmethacrylate. These polymers inhibited the formation of CPA in liver exts. contg. both the exogeneous carcinogen benzidine and the endogeneous carcinogen 3-hydroxyanthranilic acid (tryptophan metabolite). However, these polymers had no marked effect on the CPA content in the blood serum of mice given benzidine. Other polymers had no marked effect on the CPA content in animal tissues.
IT **25322-68-3 138455-01-3**
RL: BIOL (Biological study)
(**antigen**-carcinogen complex formation in blood serum and liver response to)
RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



RN 138455-01-3 HCAPLUS
CN Acetic acid, [4-[(2-methyl-1-oxo-2-propenyl)amino]phenoxy]-, polymer with 1-ethenyl-2-pyrrolidinone (9CI) (CA INDEX NAME)

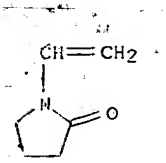
CM 1

CRN 19243-98-2
CMF C12 H13 N O4



CM 2

CRN 88-12-0
CMF C6 H9 N O



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=> d bib abs hitstr 154 19

L54  ANSWER 19 OF 30  HCAPLUS  COPYRIGHT 2001 ACS
AN   1992:23061  HCAPLUS
DN   116:23061
TI   Receptors for thermal-transfer recording sheets
IN   Light, William A.
PA   Eastman Kodak Co., USA
SO   U.S., 6 pp.
     CODEN: USXXAM
DT   Patent
LA   English.
FAN.CNT 1
     PATENT NO.         KIND  DATE           APPLICATION NO.   DATE
     ---------------    ----  --------       ---------------   --------
PI   US 5045864          A    19910903       US 1990-625711    19901203
     WO 9209439          A1   19920611       WO 1991-US8744    19911125
         W:  JP
         RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE
     EP 513329           A1   19921119       EP 1992-901679    19911125
     EP 513329           B1   19950329
         R:  BE, DE, FR, GB, NL
     JP 05504113         T2   19930701       JP 1992-502335    19911125
PRAI US 1990-625711     19901203
     WO 1991-US8744     19911125
CS   MARPAT 116:23061
AB   The title receptors, with controlled dot size and smooth surfaces, contain
     vinylpyrrolidones, cyclohexanedimethanol-xylylene glycol-terephthalic
     acid-malonic acid-Na iminobis(sulfonylbenzoate) copolymer,
     polyoxyalkylenes, poly(vinyl alc.), the polyethers
     F(CF2)mCH2CH2O(CH2OH2O)nR (m = 3-11, n = 1-18, R = H, alkyl), and fillers.
IT   9017-37-2, Divinylbenzene-methyl methacrylate copolymer
     25322-68-3D, perfluoroalkyl ether
     RL: USES (Uses)
        (in receptors for thermal transfer printing)
RN   9017-37-2  HCAPLUS
CN   2-Propenoic acid, 2-methyl-, methyl ester, polymer with diethenylbenzene
     (9CI)  (CA INDEX NAME)

     CM   1

     CRN  1321-74-0
     CMF  C10 H10
     CCI  IDS
     CDES 8:ID
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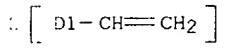

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     CM   2

     CRN  80-62-6
     CMF  C5 H8 O2
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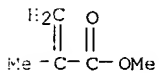
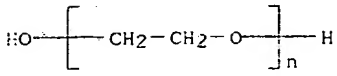
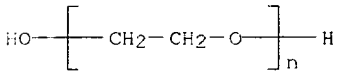


RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



=> d bib abs hitstr 154 20

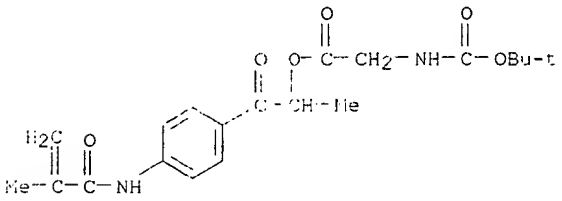
L54 ANSWER 20 OF 30 HCAPLUS COPYRIGHT 2001 ACS
AN 1991:633549 HCAPLUS
DN 115:233549
TI Optically controlled ligand delivery. II. Copolymers containing .alpha.-methylphenacyl bonds
AU Yen, Hung Ren; Andrade, Joseph D.; Kopecek, Jindrich
CS Dep. Mater. Sci. Eng., Univ. Utah, Salt Lake City, UT, 84112, USA
SO J. Appl. Polym. Sci. (1991), 43(7), 1241-52
CODEN: JAPNAB; ISSN: 0021-8995
DT Journal
LA English
AB N-(2-Hydroxypropyl)methacrylamide copolymers contg. side chains terminated in a model ligand, N-tert-butyloxycarbonylglycine, bound via photocleavable .alpha.-methylphenacyl bonds were synthesized to test the possibility of developing an optically controlled ligand delivery system suitable for sensors. One of the copolymers was further covalently attached to (3-aminopropyl)triethoxysilane-coated porous silica beads which were modified with an excess of .alpha.,.omega.-diamino-poly(ethylene oxide) of mol. wt. 1000 or 5000. The photochem. release of ligand induced by exposure to light in soln. and at the solid-liq. interface was studied. The influence of solvent and the length of poly(ethylene oxide) spacers on the rate of photocleavage were detd. The hydrolytic stability of the .alpha.-methylphenacyl bond in both soln. and at the solid-liq. interface were also investigated.
IT **25322-68-3DP**, amine-terminated, reaction products with glutaraldehyde-modified APS-coated silica and methylphenacyl group-contg. copolymers **137020-49-6DP**, reaction products with functionalized silica
RL: SPN (Synthetic preparation); PREP (Preparation)
(beads, photocleavable, with optically controlled **ligand** delivery, prepn. and characterization of)
RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



RN 137020-49-6 HCAPLUS
CN Glycine, N-[(1,1-dimethylethoxy)carbonyl]-, 1-methyl-2-[4-[(2-methyl-1-oxo-2-propenyl)amino]phenyl]-2-oxoethyl ester, polymer with N-(3-aminopropyl)-2-methyl-2-propenamide monohydrochloride and N-(2-hydroxypropyl)-2-methyl-2-propenamide (9CI) (CA INDEX NAME)

CM 1

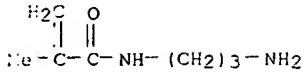
CRN 137020-47-4
CMF C20 H26 N2 O6



CM 2

CRN 72607-53-5

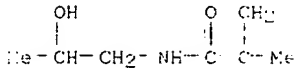
CMF C7 H14 N2 O . Cl H



● HCl

CM 3

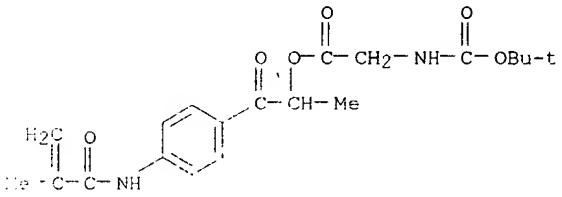
CRN 21442-01-3
CMF C7 H13 N O2



IT **137020-48-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and hydrolytic stability of)
RN 137020-48-5 HCAPLUS
CN Glycine, N-[(1,1-dimethylethoxy)carbonyl]-, 1-methyl-2-[4-[(2-methyl-1-oxo-2-propenyl)amino]phenyl]-2-oxoethyl ester, polymer with N-(2-hydroxypropyl)-2-methyl-2-propenamide (9CI) (CA INDEX NAME)

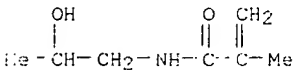
CM 1

CRN 137020-47-4
CMF C20 H26 N2 O6



CM 2

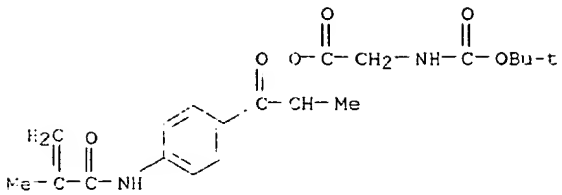
CRN 21442-01-3
CMF C7 H13 N O2



IT **137020-49-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and reaction of, with functionalized silica)
RN 137020-49-6 HCAPLUS
CN Glycine, N-[(1,1-dimethylethoxy)carbonyl]-, 1-methyl-2-[4-[(2-methyl-1-oxo-2-propenyl)amino]phenyl]-2-oxoethyl ester, polymer with N-(3-aminopropyl)-2-methyl-2-propenamide monohydrochloride and N-(2-hydroxypropyl)-2-methyl-2-propenamide (9CI) (CA INDEX NAME)

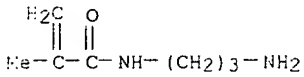
CM 1

CRN 137020-47-4
CMF C20 H26 N2 O6



CM 2

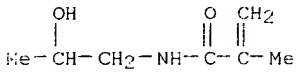
CRN 72607-53-5
CMF C7 H14 N2 O . Cl H



● HCl

CM 3

CRN 21442-01-3
CMF C7 H13 N O2



=> d bib abs hitstr l54 21

L54 ANSWER 21 OF 30 HCAPLUS COPYRIGHT 2001 ACS
AN 1991:30125 HCAPLUS
DN 114:30125
TI Enteric formulations of physiologically-active peptides and proteins
IN Takada, Kanji
PA Japan
SO PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9001329	A1	19900222	WO 1989-JP748	19890726
	W: US				
	RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
	JP 02040320	A2	19900209	JP 1988-191185	19880730
	JP 2792862	B2	19980903		
	EP 387352	A1	19900919	EP 1989-908863	19890726
	EP 387352	B1	19940713		
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
	US 5350741	A	19940927	US 1992-888324	19920526
PRAI	JP 1988-191185	19880730			
	WO 1989-JP748	19890726			
	US 1990-474089	19900330			

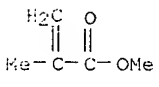
AB Enteric formulations of a peptide or protein drug comprise .gtoreq.80% enteric material, capable of dissolving in the duodenal juice, and a nonionic surfactant. The enteric (material, which may also be applied as a coat, is cellulose acetate phthalate, poly(methacrylic acid-Me methacrylates), hydroxypropylmethyl cellulose phthalate, etc. when the drug is susceptible to enzymic degrdn. in the intestinal tract, an org. acid and/or a protease inhibitor are used in combination with the surfactant. A soln. of 400 mg L-tartaric acid and 40 mg polyethylene glycol-hydrogenated castor oil in 5 mL MeOH was treated with 1.5 g recombinant human granulocyte colony-stimulating factor, followed by solvent evapn. The residue was mixed with 30 mg NaHCO3, shaped into pills, and the pills coated with hydroxypropylmethylcellulose phthalate, to obtain an enteric formulation.

IT **25086-15-1**, Methacrylic acid-methyl methacrylate copolymer
25322-68-3, Polyethylene glycol
RL: BIOL (Biological study)
(pharmaceutical enteric formulation contg. peptide and **proteins** and)

RN 25086-15-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

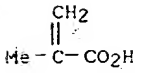
CM 1

CRN 80-62-6
CMF C5 H8 O2

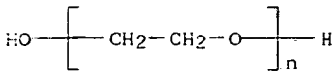


CM 2

CRN 79-41-4
CMF C4 H6 O2



RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



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L54  ANSWER 22 OF 30  HCAPLUS  COPYRIGHT 2001 ACS
AN   1990:520864  HCAPLUS
DN   113:120864
TI   Clouding-resistant contact lens and medical device polymers which absorb
     less proteins
IN   Froix, Michael
PA   USA
SO   U.S., 13 pp. Cont.-in-part of U.S. Ser. No. 896,603.
     CODEN: USXXAM
DT   Patent
LA   English
FAN.CNT 2
     PATENT NO.         KIND  DATE           APPLICATION NO.   DATE
     ---------------    ----  --------       ---------------   --------
PI   US 4871785         A     19891003       US 1988-156359    19880216
     US 4756627         A     19880621       US 1986-896603    19860813
     AU 8776853         A1    19880218       AU 1987-76853     19870813
     AU 595744          B2    19900405
     FR 2603593         A1    19880311       FR 1987-11560     19870813
     GB 2195644         A1    19880413       GB 1987-19149     19870813
     JP 63106724        A2    19880511       JP 1987-202608    19870813
PRAI US 1986-896603     19860813
AB   Contact lens and medical device compns. contg. monomers or crosslinking
     materials which result in satisfactory moisture content but lowered
     protein absorption capability are described.  These lenses are comfortable
     for extended wear, but because of lowered protein absorption do not become
     opaque, and present less infection risk.  Included are polymers having
     >20% conventional crosslinkers; 20-100% crosslinkers which are unsatd.
     diesters of HO(CH2CH2O)nH (I; n = 5-300); 1-69% copolymg. monomer which is
     an ester of I; 0.1-90% crosslinkers which are diesters of HOCH2(CF2)mCH2OH
     (m = 1-10), or which contain silyl components; 1-40% PEG or polyethylene
     oxide; or copolymers contg. 1-90% polyethylene oxide when the compn. does
     not include carboxylic acids and is not treated with alkali.  A copolymer
     contg. hydroxyethyl methacrylate 45%, N-vinylpyrrolidone 5%, Me
     methacrylate 20%, and PEG methacrylate 750 30%, crosslinked with ethylene
     glycol dimethacrylate (0.4 g/100 g backbone polymer), was prepd. using
     photoinitiator Durocure 1173 and UV light to effect polymn.  Lenses prepd.
     from this copolymer had an equil. H2O content of 55% and absorbed 20 .mu.g
     lysozyme and 6 .mu.g albumin/lens.A control lens made from a copolymer
     contg. the same components but lacking PEG methacrylate (30%, 45%, 25%,
     0%, resp.), crosslinked with ethylene glycol dimethacrylate, had a water
     content of 55% and absorbed 196 and 14.5 .mu.g of the resp. proteins per
     lens.
IT   128977-47-9
     RL: BIOL (Biological study)
        (contact lens compn. contg.)
RN   128977-47-9  HCAPLUS
CN   2-Propenoic acid, 2-methyl-, 1,6-hexanediyl ester, polymer with
     1-ethenyl-2-pyrrolidinone, methyl 2-methyl-2-propenoate,
     .alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.-hydroxypoly(oxy-1,2-
     ethanediyl), 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluorooctyl
     2-propenoate and 3-[(trimethoxysilyl)oxy]propyl 2-methyl-2-propenoate
     (9CI)  (CA INDEX NAME)

     CM   1

     CRN  72537-60-1
     CMF  C10 H20 O6 Si
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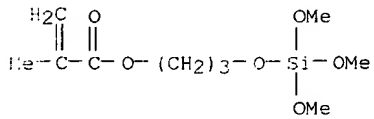
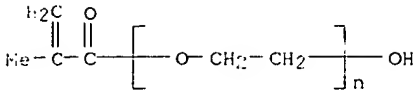


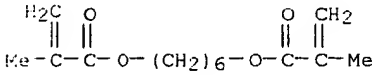
CM 2

CRN 25736-86-1
CMF (C2 H4 O)n C4 H6 O2
CCI PMS



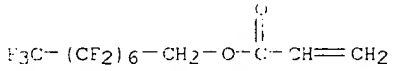
CM 3

CRN 6606-59-3
CMF C14 H22 O4



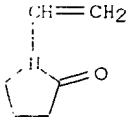
CM 4

CRN 307-98-2
CMF C11 H5 F15 O2



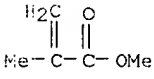
CM 5

CRN 88-12-0
CMF C6 H9 N O



CM 6

CRN 80-62-6
CMF C5 H8 O2

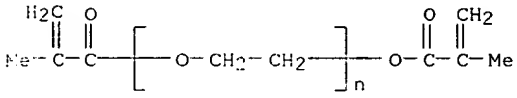


IT **115863-70-2 115863-72-4 128956-34-3**
RL: BIOL (Biological study)
(contact lenses contg., equil. water content and hardness of)
RN 115863-70-2 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with .alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.-hydroxypoly(oxy-1,2-

ethanediyl), .alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.-[(2-methyl-1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl), 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluorooctyl 2-methyl-2-propenoate and 3-[3,3,3-trimethyl-1,1-bis[(trimethylsilyl)oxy]disiloxanyl]propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

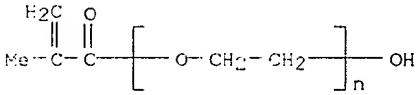
CM 1

CRN 25852-47-5
CMF (C2 H4 O)n C8 H10 O3
CCI PMS



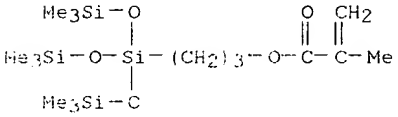
CM 2

CRN 25736-86-1
CMF (C2 H4 O)n C4 H6 O2
CCI PMS



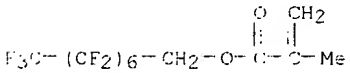
CM 3

CRN 17096-07-0
CMF C16 H38 O5 Si4



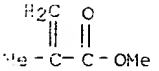
CM 4

CRN 3934-23-4
CMF C12 H7 F15 O2



CM 5

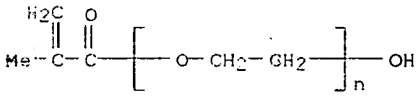
CRN 80-62-6
CMF C5 H8 O2



RN 115863-72-4 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2,2,3,3,4,4-hexafluoro-1,5-pentanediyl ester, polymer with butyl 2-methyl-2-propenoate, 1-ethenyl-2-pyrrolidinone, methyl 2-methyl-2-propenoate, .alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.-hydroxypoly(oxy-1,2-ethanediyl) and 3-[3,3,3-trimethyl-1,1-bis[(trimethylsilyl)oxy]disiloxanyl]propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

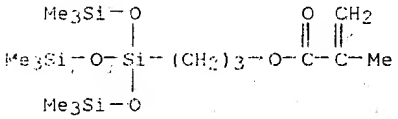
CM 1

CRN 25736-86-1
CMF (C2 H4 O)n C4 H6 O2
CCI PMS



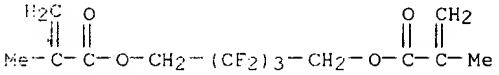
CM 2

CRN 17096-07-0
CMF C16 H38 O5 Si4



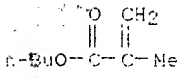
CM 3

CRN 918-36-5
CMF C13 H14 F6 O4



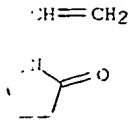
CM 4

CRN 97-88-1
CMF C8 H14 O2



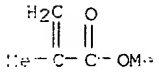
CM 5

CRN 88-12-0
CMF C6 H9 N O



CM 6

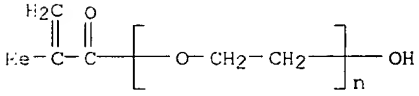
CRN 80-62-6
CMF C5 H8 O2



RN 128956-34-3 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with methyl 2-methyl-2-propenoate, .alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.-hydroxypoly(oxy-1,2-ethanediyl) and 3-[3,3,3-trimethyl-1,1-bis[(trimethylsilyl)oxy]disiloxanyl]propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

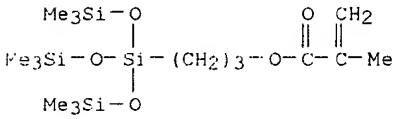
CM 1

CRN 25736-86-1
CMF (C2 H4 O)n C4 H6 O2
CCI PMS



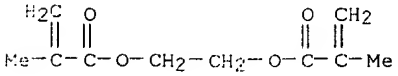
CM 2

CRN 17096-07-0
CMF C16 H38 O5 Si4



CM 3

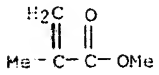
CRN 97-90-5
CMF C10 H14 O4



CM 4

CRN 80-62-6

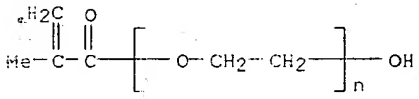
CMF C5 H8 O2



IT **128956-41-2 128956-42-3**
RL: BIOL (Biological study)
(contact lenses contg., equil. water content of and lowered protein absorption by)
RN 128956-41-2 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with 1-ethenyl-2-pyrrolidinone, 2-hydroxyethyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate and .alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.-hydroxypoly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

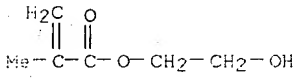
CM 1

CRN 25736-86-1
CMF (C2 H4 O)n C4 H6 O2
CCI PMS



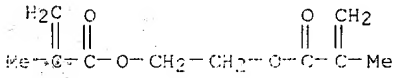
CM 2

CRN 868-77-9
CMF C6 H10 O3



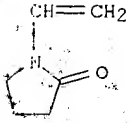
CM 3

CRN 97-90-5
CMF C10 H14 O4



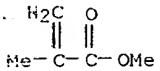
CM 4

CRN 88-12-0
CMF C6 H9 N O



CM 5

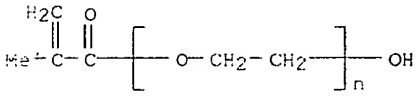
CRN 80-62-6
CMF C5 H8 O2



RN 128956-42-3 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with 1-ethenyl-2-pyrrolidinone, methyl 2-methyl-2-propenoate and .alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.-hydroxypoly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

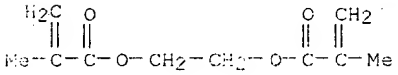
CM 1

CRN 25736-86-1
CMF (C2 H4 O)n C4 H6 O2
CCI PMS



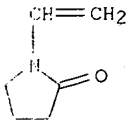
CM 2

CRN 97-90-5
CMF C10 H14 O4



CM 3

CRN 88-12-0
CMF C6 H9 N O



CM 4

CRN 80-62-6
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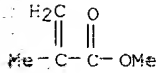
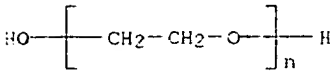


IT **25322-68-3D**, unsatd. monoesters, copolymers
RL: BIOL (Biological study)

(**protein**-resistant contact lenses and medical devices contg.)

RN 25322-68-3 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



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L54  ANSWER 23 OF 30  HCAPLUS  COPYRIGHT 2001 ACS
AN   1989:505778  HCAPLUS
DN   111:105778
TI   Imaged copy film
IN   Rennison, Stuart Christopher; Page, Darrin John
PA   Imperial Chemical Industries PLC, UK
SO   Eur. Pat. Appl., 8 pp.
     CODEN: EPXXDW
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.         KIND  DATE          APPLICATION NO.   DATE
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PI   EP 315360          A2    19890510      EP 1988-310052    19881026
     EP 315360          A3    19900207
         R:  BE, CH, DE, FR, GB, IT, LI
     US 4891285         A     19900102      US 1988-265503    19881101
PRAI GB 1987-25673      19871103
AB   Receptor sheets for electrostatic copying showing improved toner adhesion
     and superior resistance of the image to abrasion and erasure are composed
     of a polymeric substrate and an image-receiving layer comprising a
     terpolymer of a vinyl halide, a vinyl ester of a satd. aliph. carboxylic
     acid, and a functional group-contg. termonomer.  Thus, a biaxially
     oriented PET film was coated with a soln. of p-chloro-m-cresol in MeOH,
     dried, coated with a soln. contg. a hydroxypropyl acrylate-vinyl
     acetate-vinyl chloride copolymer, Me2CO, MeOH, and diacetone alc., dried,
     and the coated with Phriol E9000 wax in MeOH.  When imaged in a
     electrostatic copier, an image with superior toner adhesion was obtained.
IT   30394-86-6, Ethyl acrylate-methacrylamide-methyl methacrylate
     copolymer
     RL: USES (Uses)
        (electrophotog. image receptor sheet with image-receiving layer contg.,
        for improved toner adhesion)
RN   30394-86-6  HCAPLUS
CN   2-Propenoic acid, 2-methyl-, methyl ester, polymer with ethyl 2-propenoate
     and 2-methyl-2-propenamide (9CI)  (CA INDEX NAME)

     CM   1

     CRN  140-88-5
     CMF  C5 H8 O2
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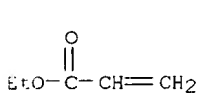

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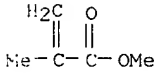

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     CM   3

     CRN  79-39-0
     CMF  C4 H7 N O
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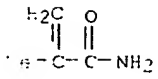
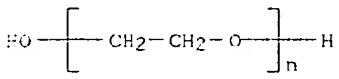


IT **25322-68-3**, Carbowax E3000
RL: USES (Uses
(wax, electrophotog. image **receptor** sheet with vinyl polymer
image-receiving layer and layer contg.)
RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



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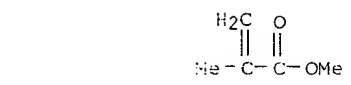
=> d bib abs hitstr 154 24

L54  ANSWER 24 OF 31  HCAPLUS  COPYRIGHT 2001 ACS
AN   1989:458364  HCAPLUS
IN   111:58364
TI   Purification of placental protein PP4 by chromatography on carrier-bound
     sulfated sugars in the presence of calcium ion
IN   Loebermann, Hartmut
PA   Behringwerke A.-G., Fed. Rep. Ger.
SO   Ger. Offen., 3 pp.
     CODEN: GWXXBX
DT   Patent
LA   German
FAN.CNT 1
     PATENT NO.         KIND  DATE           APPLICATION NO.   DATE
     ---------------    ----  --------       ---------------   --------
PI   DE 3724726         A1    19890202       DE 1987-3724726   19870725
     EP 301374          A2    19890201       EP 1988-111576    19880719
     EP 301374          A3    19900131
     EP 301374          B1    19930203
         R:  AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE
     AT 85344           E     19930215       AT 1988-111576    19880719
     ES 2038721         T3    19930801       ES 1988-111576    19880719
     FI 8803450         A     19890126       FI 1988-3450      19880721
     FI 90553           B     19931115
     FI 90553           C     19940225
     DK 8804110         A     19890126       DK 1988-4110      19880722
     AU 8819735         A1    19890127       AU 1988-19735     19880722
     AU 620553          B2    19920220
     JP 01035000        A2    19890206       JP 1988-181948    19880722
     JP 2511500         B2    19960626
     US 4990597         A     19910205       US 1988-222998    19880722
     KR 9701810         B1    19970215       KR 1988-9268      19880723
     CA 1327675         A1    19940308       CA 1988-572953    19880725
PRAI DE 1987-3724726  19870725
     EP 1988-111576   19880719
AB   Placental tissue protein PP4 (I), useful as an anticoagulant, was purified
     by contacting a soln. contg. I and Ca++ ions with a carrier-bound
     polysulfuric acid ester of a saccharide or a carrier-bound sulfated sugar
     followed by removal of the supernatant and washing/elution of I-contg.
     carrier matrix.  A soln. of phenylsepharose eluate contg. 160 .mu.g I/mL
     was dialised against Buffer A and the soln. was stirred 30 min with
     heparin sepharose.  The supernatant was removed and the adsorbent was
     washed with Buffer A followed by stepwise gradient elution with aq. NaCl.
     After rechromatog. on dextran sulfate sepharose, I was purified by SDS
     polyacrylamide gel electrophoresis.
IT   9011-14-7D, Polymethyl methacrylate, sugar polysulfate-bound
     25322-68-3D, Polyethylene glycol, sugar polysulfate-bound
     RL: RCT (Reactant)
        (use of, in purifn. of protein PP4)
RN   9011-14-7  HCAPLUS
CN   2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (9CI)  (CA INDEX
     NAME)

     CM   1

     CRN  80-62-6
     CMF  C5 H8 O2
```



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RN   25322-68-3  HCAPLUS
CN   Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI)  (CA INDEX
     NAME)
```
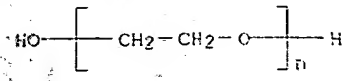



=> d bit abs hitstr 154 25

L54 ANSWER 25 OF 30 HCAPLUS COPYRIGHT 2001 ACS
AN 1988:625808 HCAPLUS
DN 109:225808
TI Isolation of enzymes from aqueous mixtures using affinity chromatography
IN Call, Hans Peter; Emeis, Carl Christian; Mueller-Schulte, Detlef
PA Fed. Rep. Ger.
SO Ger. Offen., 5 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

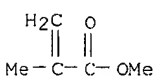
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3613407	A1	19871022	DE 1986-3613407	19860421
	DE 3613407	C2	19920521		
	WO 8706596	A2	19871105	WO 1987-EP214	19870421
	WO 8706596	A3	19880407		
	W: AT, AU, CH, DE, DK, FI, GB, JP, KR, LU, NL, NO, SE, SU, US				
	RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
	AU 8775455	A1	19871124	AU 1987-75455	19870421
	EP 282496	A1	19880921	EP 1987-904036	19870421
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
	JP 01500836	T2	19890323	JP 1987-503809	19870421
	DK 8706685	A	19880119	DK 1987-6685	19871218
PRAI	DE 1986-3613407		19860421		
	WO 1987-EP214		19870421		

AB Affinity chromatog. compns. are prepd. by coupling monomeric or oligomeric substances which are partial substrate and/or competitive inhibitors, or are substrate analogs and/or inhibitors, with epoxide-contg. plastics (e.g. polyethylene, polyamide, etc.). By use of readily available plastics and ligands, a significant savings can be realized for the purifn. of enzymes. Maltase was purified on a maltose-contg. affinity column.

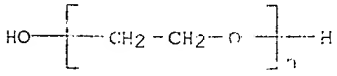
IT **9011-14-7D**, epoxide derivs.
RL: BIOL (Biological study)
(affinity chromatog. ligand immobilization on, enzyme purifn. with)
RN 9011-14-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 80-62-6
CMF C5 H8 O2



IT **25322-68-3**
RL: BIOL (Biological study)
(plastic-immobilized, epoxy-derivs. of, **ligand** immobilization on, for affinity chromatog. of **enzymes**)
RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



=> d bib abs hitstr 154 26

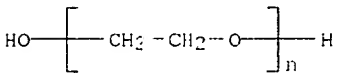
L54 ANSWER 26 OF 30 HCAPLUS COPYRIGHT 2001 ACS
AN 1986:234359 HCAPLUS
DN 104:234359
TI Recording receptor and ink-jet recording method
IN Toganoh, Shigeo; Arai, Ryuichi; Sakaki, Mamoru
PA Canon K. K. , Japan
SO Ger. Offen., 67 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3510565	A1	19850926	DE 1985-3510565	19850323
	DE 3510565	C2	19910221		
	JP 60199689	A2	19851009	JP 1984-54524	19840323
	JP 60199690	A2	19851009	JP 1984-54525	19840323
	JP 60220750	A2	19851105	JP 1984-76557	19840418
	JP 60245585	A2	19851205	JP 1984-100679	19840521
	JP 60245586	A2	19851205	JP 1984-100680	19840521
	JP 60262685	A2	19851226	JP 1984-119097	19840612
	JP 61010483	A2	19860117	JP 1984-130944	19840627
	JP 06041226	B4	19940601		
	JP 61027279	A2	19860206	JP 1984-148660	19840719
	JP 61027280	A2	19860206	JP 1984-148661	19840719
PRAI	JP 1984-54524	19840323			
	JP 1984-54525	19840323			
	JP 1984-76557	19840418			
	JP 1984-100679	19840521			
	JP 1984-100680	19840521			
	JP 1984-119097	19840612			
	JP 1984-130944	19840627			
	JP 1984-148660	19840719			
	JP 1984-148661	19840719			

AB Ink-jet recording receptor sheets are composed of a substrate and an ink-receiving layer on which the ink can be fixed within 3 min at 20.degree. and 65% relative humidity when the ink is applied at 0.7 mL/cm2. The ink contains 30-90% water (based on the total wt. of the ink) and has a viscosity of .ltoreq.20 Cp at 25.degree.. Thus, a transparent polyester film (100 mm), that had been hydrophilized, was coated with a compn. contg. Gohsenol KH-17 10 and water 90 parts to give a 10 mm (dry) layer. The resultant receptor material was then recorded on using an aq. ink to give a recording show an ink-fixing time, an ink point d., a suitability for overhead projection, a linear transmission factor, and a lamination suitability of 2 min, 0.8, excellent, 80%, and excellent, resp., vs. .gtoreq.1 day, 0.9, excellent, 62%, and poor, resp., for a control using a com. overhead projection film.

IT **25322-68-3 26355-01-1**
RL: USES (Uses)
(transparent ink-jet recording **receptors** from polyester films with layer of)

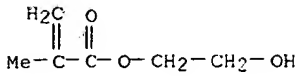
RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



RN 26355-01-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

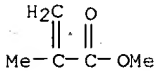
CM 1

CRN 868-77-9
CMF C6 H10 O3



CM 2

CRN 80-62-6
CMF C5 H8 O2

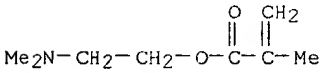


=> d bib abs hitstr 154 27

L54 ANSWER 27 OF 30 HCAPLUS COPYRIGHT 2001 ACS
AN 1985:209362 HCAPLUS
DN 102:209362
TI Rapidly disintegrating tablets coated with non-enteric and enteric films in comparison to commercial ones
AU Ghanem, Abdel-Halim; Nouh, Ahmed Talaat; Mahmoud, Hanaa; El-Saeed, Yousry; Fawzy, Abdel-Aziz; Graf, Engelbert
CS Fac. Pharm., Mansoura Univ., Mansoura, Egypt
SO Acta Pharm. Technol. (1985), 31(1), 38-41
CODEN: APTEDD; ISSN: 0340-3157
DT Journal
LA English
AB Com. pancreatin (I [8049-47-6] tablets were evaluated in comparison to a selected formulation made by direct compression of equal parts of I and Avicel [9004-34-6] with 10% crosslinked poly(vinylpyrrolidone (II) [9003-39-8] as disintegrant. Tablets were coated with nonenteric and enteric films. Festal, Festavital and Nutrizym disintegrated in more than 1 h, while Spasmocanulase and Polyzyme disintegrated within 1 h in pH 6.8 buffer after 1 h in 0.1N HCl. Zymogen and Zymogen Fort disintegrated in 30-50 min in water or 0.1N-HCl. Thus, the former group may be enterically coated while the latter may be nonenterically coated. Noncoated lab. tablets disintegrated in 5 min. Coating with hydroxypropyl Me cellulose [9004-65-3] and polyethylene glycol [**25322-68-3**] did not alter the disintegration time. Tablets coated with II exhibited a 2-fold increase in the disintegration time, while those coated with Eudragit E [**24938-16-7**] showed a 4-fold increase. Enteric coating with cellulose acetate phthalate [9004-38-0] or Eudragit L [51822-44-7] resisted disintegration in 0.1N HCl for 1 h and disintegrated in buffer of pH 6.8 in 18 and 20 min. Amylase [9000-92-4] was not affected by the coating procedure, but lipase [9001-62-1] showed a marked loss in activity due to exposure to solvents during coating. Coating with hydroxypropyl Me cellulose, Eudragit E, cellulose acetate phthalate and Eudragit L provided satisfactory protection of the **enzymes**, while tablets coated with polyethylene glycol and II showed higher losses of **enzymes** than uncoated tablets upon storage at 37.degree. for 3 mo.
IT **24938-16-7**
RL: BIOL (Biological study)
(pancreatin tablets coated with, disintegration of)
RN 24938-16-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with 2-(dimethylamino)ethyl 2-methyl-2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

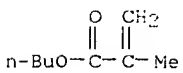
CM 1

CRN 2867-47-2
CMF C9 H15 N O2



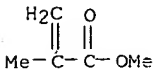
CM 2

CRN 97-88-1
CMF C8 H14 O2



CM 3

CRN 80-62-6
CMF C5 H8 O2



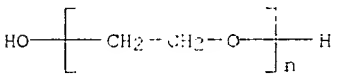
=> d bib ab hitstr l54 28

L54 ANSWER 28 OF 30 HCAPLUS COPYRIGHT 2001 ACS
AN 1984:552868 HCAPLUS
DN 101:152868
TI Recovery of thermoplastic resins
PA Japan Synthetic Rubber Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 59061103	A2	19840525	JP 1982-200359	19821117
	JP 01051483	B4	19891102		

AB Free-flowing powd. thermoplastic resins of uniform particle size are recovered continuously and efficiently from their emulsions by adding coagulants in .gtoreq.2 steps, at successively higher temps. Thus, butadiene-styrene rubber 45, styrene 35, and Me methacrylate 20 parts were polymd. to obtain a graft copolymer (I) [**25053-09-2**] emulsion, which was adjusted to pH 4.0 with H2SO4 and fed to a coagulating tank at ambient temp., then transferred to 2nd tank at 85.degree., to which H2SO4 was continuously fed to lower the pH to 2.5. The slurry from the 2nd tank was centrifuged, washed with water, and dried to obtain powd. I having blocking resistance (min. pressure needed to compact into nonflowing plug) 0.52 kg/cm2, vs. 0.26 kg/cm2 for I coagulated using the same amt. of H2SO4 in a single step.

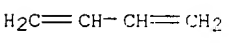
IT **25322-68-3**
RL: USES (Uses)
(**coagulants**, continuous recovery of thermoplastics using, multistage, for uniform particle size)
RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



IT **25053-09-2P**
RL: PREP (Preparation)
(graft, recovery of, from emulsions, by stepwise coagulation, for uniform particle size)
RN 25053-09-2 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 1,3-butadiene and ethenylbenzene (9CI) (CA INDEX NAME)

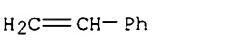
CM 1

CRN 106-99-0
CMF C4 H6



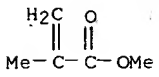
CM 2

CRN 100-42-5
CMF C8 H8



CM 3

CRN 80-62-6
CMF C5 H8 O2



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=> d bib abs hitstr l54 29

L54  ANSWER 29 OF 30  HCAPLUS  COPYRIGHT 2001 ACS
AN   1981:183445  HCAPLUS
DN   94:183445
TI   Ink-jet printing method
PA   Fuji Photo Film Co., Ltd., Japan
SO   Jpn. Kokai Tokkyo Koho, 8 pp.
     CODEN: JKXXAF
DT   Patent
LA   Japanese
FAN.CNT 2
     PATENT NO.        KIND  DATE           APPLICATION NO.   DATE
     ---------------   ----  --------       ---------------   --------
PI   JP 55144172        A2   19801110       JP 1979-52114     19790427
     US 4446174         A    19840501       US 1980-144115    19800428
PRAI JP 1979-52114     19790427
     JP 1979-58788     19790514
AB   Ink jet printing receptor sheets are coated with a compn. contg. pigments
     which adsorb coloring agents contained in the water-base inks.  The
     receptor sheets are esp. useful for multicolor printing method.  Thus,
     paper supports were coated with a compn. contg. zeolite (synthetic) 70, Al
     silicate, Na hexametaphosphate 0.3, casein 10, styrene-butadiene copolymer
     latex 10, melamine resin 1, and polyethylene glycol 2 parts to give a
     receptor paper which was esp. useful for aq. ink contg. basic dyes.
IT   25232-40-0 25322-68-3
     RL: USES (Uses)
        (coating compns. contg., for ink-jet color printing receptor
        sheets)
RN   25232-40-0  HCAPLUS
CN   2-Propenoic acid, 2-methyl-, methyl ester, polymer with 1,3-butadiene
     (9CI)  (CA INDEX NAME)

     CM   1

     CRN  106-99-0
     CMF  C4 H6
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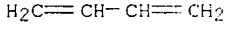

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     CM   2

     CRN  80-62-6
     CMF  C5 H8 O2
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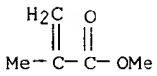

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RN   25322-68-3  HCAPLUS
CN   Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI)  (CA INDEX
     NAME)
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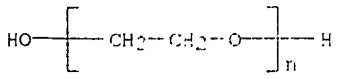


=> d bib abs hitstr l54 30

L54 ANSWER 30 OF 30 HCAPLUS COPYRIGHT 2001 ACS
AN 1974:71386 HCAPLUS
DN 80:71386
TI Poly(ethylene oxide) copolymers
IN Chu, Nan Shieh; Wartman, Lloyd H.
PA Union Carbide Corp.
SO U.S., 5 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3763277	A	19731002	US 1971-162727	19710701
PRAI	US 1970-12866		19700219		

AB Poly(ethylene oxide) (I) [**9002-90-8**] (10-90 parts) was copolymd. with 10-90 parts acrylic acid, acrylonitrile acrylamide, methacrylates, styrene, and (or) 2-methyl-5-vinylpyridine in aq. media in inert atms. in the presence of 0.05-1.0 mole % diammonium iron(II) sulfate hexahydrate (II) [7783-85-9] and 0.05-1.0 mole % oxidizing agent, both based on total vinyl monomer to give film-forming products with high yield strength and elastic modulus, e.g. suitable for water-sol. packaging and anionic **coagulant**. Thus, 10 g I mol. wt. 600,000, and 200 ml water, was treated with 0.05 g II. A sep. soln. contg. acrylic acid and acrylamide, and 0.04 g (NH4)2S2O8 (based on the total vinyl monomers) in 20 ml water was prepd. for a 10:5:5 (g) I-acid-amide monomer charge. The soln. was added dropwise to the I soln. at room temp., and the reaction proceeded 1.5 hr to give 53.7% copolymer contg. I 62.2, acrylic acid 18.6, and acrylamide 19.2%, which was cast into transparent films about 0.001 in thick with yield strength (ASTM D-1530) 3220 psi, and elastic modulus (ASTM D-1708) 136,000, psi. Respective values for I alone were 1110 and 34,500 psi.

IT **52284-74-9P 52284-77-2P**
RL: PREP (Preparation)
(graft, manuf. of, catalysts for)

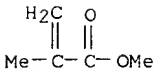
RN 52284-74-9 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with oxirane and 2-propenoic acid, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 52284-73-8
CMF (C5 H8 O2 . C3 H4 O2 . C2 H4 O)x
CCI PMS

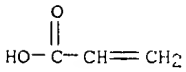
CM 2

CRN 80-62-6
CMF C5 H8 O2



CM 3

CRN 79-10-7
CMF C3 H4 O2



CM 4

CRN 75-21-8
CMF C2 H4 O

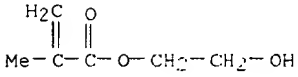
RN 52284-[illegible]-2 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with methyl 2-methyl-2-propenoate, oxirane and 2-propenoic acid, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 52284-76-1
CMF (C6 H10 O3 . C5 H8 O2 . C3 H4 O2 . C2 H4 O)x
CCI PMS

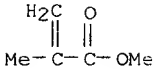
CM 2

CRN 868-77-9
CMF C6 H10 O3



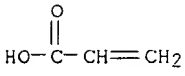
CM 3

CRN 80-62-6
CMF C5 H8 O2



CM 4

CRN 79-10-7
CMF C3 H4 O2



CM 5

CRN 75-21-8
CMF C2 H4 O

=> d bib abs hitstr l61 1

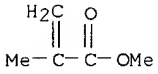
L61 ANSWER 1 OF 13 HCAPLUS COPYRIGHT 2001 ACS
AN 1998:352113 HCAPLUS
DN 129:32348
TI Materials for removing or inactivating cytokines, their uses, and removal of cytokines from body fluids using them
IN Ida, Nobuo; Fukuyama, Mayumi; Shimizu, Shinji
PA Toray Industries, Inc., Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10147518	A2	19980602	JP 1996-308051	19961119

AB The materials contain .gtoreq.1 functional group capable of forming H bond, e.g. urea bond, thiourea bond, amide bond, amino group, OH group, etc. Cytokines, e.g. interleukin-8 and monocyte chemotactic activating factor, are removed from liqs. such as body fluids by passing the liqs. through columns packed with the materials. Also claimed are body fluid purifn. columns packed with the materials and wound dressings comprising the materials. Chitopearl BCW 3501 effectively removed IL-8 or MCAF/MCP-1 from rabbit heat-inactivated plasma.
IT **9011-14-7D**, Poly(methyl methacrylate), derivs.
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(polymers having functional groups capable of **H bond** as cytokine adsorbents for body fluid purifn.)
RN 9011-14-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 80-62-6
CMF C5 H8 O2

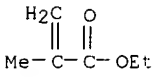


=> d bib abs hitstr 161 2

L61 ANSWER 1 OF 13 HCAPLUS COPYRIGHT 2001 ACS
AN 1998:162445 HCAPLUS
DN 128:244659
TI Fixation by H-bonding of **ligands** in polymer coils
AU Huyskens, P.; Nelis, K.; Vael, Ch.; Verstraeten, K.; Zeegers-Huyskens, Th.
CS Department of Chemistry, University of Leuven, Heverlee, B-3001, Belg.
SO Pol. J. Chem. (1998), 72(2), 251-262
CODEN: PJCHDQ; ISSN: 0137-5083
PB Polish Chemical Society
DT Journal
LA English
AB The stability consts. of H-bonds between phenols and the ester groups of poly(Et methacrylate) (PEMA) in CCl4 detd. by IR measurements, are of the same order of magnitude as those of the phenols with the low-mol.-wt. model substance Et isobutyrate. In absence of additives, the cloud points at 25.degree.C of PEMA (Mw = 258,000) in CCl4-n-hexane mixts. are fairly well predicted by the equations of Huyskens et al. The presence of phenols displaces these cloud points towards higher values of the relative mole fraction of the cosolvent. This is also the case when acetone is used as additive. Beyond the cloud point, viscosity measurements show that practically no polymer coils remain in the supernatant liq. However, after the phase sepn., the additives behave in a completely different way. Dipolar measurements show indeed that the concn. of acetone in the supernatant liq. is of the same order as in the soln. before the pptn., whereas the phenol mols. are predominantly found in the pptd. flakes. This illustrates the fundamental difference between non-specific dipole-dipole interactions and specific intermol. forces like H-bonds, whose characteristics were extensively studied during more than thirty years by Lucjan Sobczyk and his coworkers.
IT **9003-42-3**, Poly(ethyl methacrylate)
RL: PRP (Properties)
(stability const. of **hydrogen-bonds** between phenols and poly(Et methacrylate))
RN 9003-42-3 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, ethyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 97-63-2
CMF C6 H10 O2

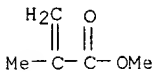


=> d bib abs hitstr l61 3

L61 ANSWER 3 OF 13 HCAPLUS COPYRIGHT 2001 ACS
AN 1997:216693 HCAPLUS
DN 126:274146
TI Noncovalent immobilization of **enzymes** on an enteric polymer Eudragit S-100
AU Sardar, M.; Agarwal, R.; Kumar, A.; Gupta, M. N.
CS Chem. Div., Indian Instittue Technology, New Delhi, India
SO Enzyme Microb. Technol. (1997), 20(5), 361-367
CODEN: EMTED2; ISSN: 0141-0229
PB Elsevier
DT Journal
LA English
AB The noncovalent unmobilization of **enzymes** such as alpha-amylase, beta-glucosidase, trypsin, and alk. phosphatase was performed by adsorption on the water-sol. polymer Eudragit S-100. The strength of the binding with **enzymes** in some cases was critically dependent upon the initial polymer concn. used during binding. In all the cases tried, a moderate increase in polymer concn. ensured adequate immobilization of **enzymes**. The immobilized **enzymes** retained different activities: 87, 59, 49, and 24% for beta-glucosidase, alpha-amylase, trypsin, and alk. phosphatase, resp. The Km value of immobilized **enzyme** was the same as that of relative **enzyme** for beta-glucosidase (3.8.times.10-3 M) and alpha-amylase (6 mg mL-1) whereas the Km value decreased in the case of trypsin (from 1.times.10-3 as to 0.6.times.10-3 M) upon immobilization. The immobilized trypsin showed improved stability to anal. as 35.degree. whereas immobilization resulted in a decrease in the thermal stability of alpha amylase at 50.degree.. No significant changes were obsd. in pH optimum of the **enzymes** upon immobilization. UV and fluorescence emission spectra of immobilized trypsin reflected the conformational changes while **enzymes** undergo adsorption on the polymer.
IT **25086-15-1**, Eudragit S-100
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(**noncovalent** immobilization of **enzymes** on an enteric polymer Eudragit S-100)
RN 25086-15-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

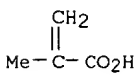
CM 1

CRN 80-62-6
CMF C5 H8 O2



CM 2

CRN 79-41-4
CMF C4 H6 O2



=> d bib abs hitstr l61 4

L61 ANSWER 4 OF 13 HCAPLUS COPYRIGHT 2001 ACS
AN 1987:72865 HCAPLUS
DN 106:72865
TI Characterization of **protein** adsorption on soft contact lenses. IV. Comparison of in vivo spoilage with the in vitro adsorption of tear **proteins**
AU Castillo, E. J.; Koenig, J. L.; Anderson, J. M.
CS Dep. Macromol. Sci., Case Western Reserve Univ., Cleveland, OH, 44106, USA
SO Biomaterials (1986), 7(2), 89-96
CODEN: BIMADU; ISSN: 0142-9612
DT Journal
LA English
AB Tear **protein** and .gamma.-globulin mixts. were adsorbed on soft contact lenses of different chem. compn., surface quality and water content. The adsorption process was followed by Fourier-transform IR-attenuated total reflectance spectroscopy. .gamma.-Globulin underwent a conformational and orientational change after its adsorption and the extent of structural change appeared to be proportional to the binding strength of the **protein** with the hydrogel surface. **Electrostatic** interactions play a major role in the **protein** adsorption on lenses contg. methacrylic acid. Lysozyme is selectively adsorbed on all of the high water content hydrogels and mucin is the major **protein** component for the 2-hydroxyethyl methacrylate-ethylene glycol dimethacrylate copolymer (PHEMA) [25053-81-0] type of lenses. Studies on in vivo spoiled PHEMA and N-vinylpyrrolidone-Me methacrylate copolymer [**25655-01-0**] lenses indicate that lysozyme [9001-63-2] is the major adsorbed deposit. Papain [9001-73-4] cleaning of in vivo spoiled lenses showes that although a portion of the deposits is desorbed, the **enzyme** itself becomes irreversibly adsorbed to the contact lens which may cause harmful effects to the eye.

=> d bib abs hitstr l61 7

L61 ANSWER 7 OF 13 HCAPLUS COPYRIGHT 2001 ACS
AN 1982:515288 HCAPLUS
DN 97:115288
TI Platelet retention on polymer surfaces. Some in vitro experiments
AU Merrill, E. W.; Salzman, E. W.; Sa da Costa, Vera; Brier-Russell, D.; Dincer, A.; Pape, P.; Lindon, J. N.
CS Dep. Chem. Eng., Massachusetts Inst. Technol., Cambridge, MA, 02139, USA
SO Adv. Chem. Ser. (1982), 199(Biomater.: Interfacial Phenom. Appl.), 35-42
CODEN: ADCSAJ; ISSN: 0065-2393
DT Journal
LA English
AB Several polymers were evaluated in the form of a surface coating on glass beads packed in columns to det. their ability to retain platelets when whole human blood passes over the surface. This ability was measured as the platelet retention index .hivin..rho., the fraction of platelets retained on the column. Lowest values of .hivin..rho. were found for polyethylene oxide, polypropylene oxide, polytetramethylene oxide (in the form of polyurethanes), and polydimethylsiloxane. Highest values (around 0.8) were found for crosslinked poly(vinyl alc.) [9002-89-5] and the copolymers of ethylenediamine with diisocyanates. Intermediate values were found for polystyrene [9003-53-6] and its copolymers with Me acrylate, for polyacrylate, and for poly(Me methacrylate) [**9011-14-7**]. The results are interpreted in terms of possible hydrophobic and **hydrogen bonding** interactions with plasma **proteins**.

=> d bib abs hitstr l61 9

L61 ANSWER 9 OF 13 HCAPLUS COPYRIGHT 2001 ACS
AN 1982:168667 HCAPLUS
DN 96:168667
TI Adsorption of bovine serum albumin onto homo- and copolymer latexes
AU Suzawa, Toshiro; Shirahama, Hiroyuki; Fujimoto, Tetsuya
CS Fac. Eng., Hiroshima Univ., Hiroshima, 730, Japan
SO J. Colloid Interface Sci. (1982), 86(1), 144-50
CODEN: JCISA5; ISSN: 0021-9797
DT Journal
LA English
AB The adsorbability of bovine serum albumin (BSA) onto various synthetic polymer latexes was studied at different ionic strengths as a function of pH by detg. the amt. of **protein** adsorbed. Homopolymer latexes, polystyrene (PS) [9003-53-6], poly(Me methacrylate) (PMMA) [**9011-14-7**], and poly(vinyl acetate) (PVAc) [9003-20-7], and copolymer latexes, methacrylic acid-styrene copolymer (I) [9010-92-8], methacrylic acid-Me methacrylate-styrene copolymer (II) [**25035-81-8**] were prepd. without emulsifiers and monodisperse. All these materials were anionic latexes. The initial BSA concn. was 50 mg/dL, which corresponded to the first plateau level of the adsorption isotherm. With an increase of the ionic strength, the amt. of BSA adsorbed onto each latex increased except in the isoelec. region. The pH at max. adsorption shifted to a more acidic region with increasing strength. The amt. adsorbed showed a max. around the isoelec. point of BSA. This max. adsorption at each ionic strength increased in the order of PVAc, PMMA, PS, II, and I. With I and II latexes, the increment of the amt. adsorbed was related to **H bond** formation between the **protein** and the latex. The amt. of BSA adsorbed was dependent not only on the pH and the ionic strength but on the characterization of polymer latex surface.

=> d bib abs hitstr l61 13

L61 ANSWER 13 OF 13 HCAPLUS COPYRIGHT 2001 ACS
AN 1976:136870 HCAPLUS
DN 84:136870
TI Stiffly elastic, single or multilayered plastic-impregnated flat structures from fibers, and their use as carrier material for abrasives
IN Aigner, Helmar; Lehmann, Jakob
PA Gessner und Co. G.m.b.H., Ger.
SO Ger. Offen., 28 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2434382	A1	19760129	DE 1974-2434382	19740717
	DE 2434382	B2	19770512		

AB Paper webs are impregnated with 3:7-8:2 partially decompd. animal hide glue-acrylic polymer mixts. to provide products with an inner elasticity having the high tensile strength of animal **protein**-impregnated webs and a reduced water vapor permeability. Thus, a paper web (204 parts) prepd. from a 75:25 sulfate pulp-hardwood pulp mixt. was impregnated with a mixt. of 50% 9:30: 60: 1 acrylonitrile-methyl acrylate-methyl methacrylate-N-methylolacrylamide polymer [**58831-63-3**] emulsion 200, 20% aq. soln. of animal hide glue (viscosity 280 cP) 100, 40% HCHO 2.5, and water 297.5 parts. The paper was immersed in the liquor (40.degree.) for 45 sec to provide a liquor absorption of 400 parts and dried to water content 6% in air with relative humidity 40% at 18.degree.. The product was calendered, impregnated with 60% phenolic resin, **electrostatically** coated with 40 mesh SiC, dried at 90-5.degree., and coated with a 2nd phenolic resin. The abrasive obtained had improved flexibility and performance in use .